

# Western Industry

April 1957

Vol. XXII  
No. 4

*Best M-H Ideas of the Year!*

**BULK  
HANDLING**

**CONVEYING**

**YARD AND  
OUTDOOR**

**OVERHEAD  
HANDLING  
SYSTEMS**

**INDUSTRIAL  
PACKAGING**

**INDUSTRIAL TRUCK  
APPLICATION**

**RACKS  
AND  
BINS**

**IN-FLOOR  
TOW SYSTEMS**

**THE AUTOMATIC WAREHOUSE**

**THE WESTERN MATERIAL HANDLING  
PACEMAKER PLANT - 1957**

**(a composite)**

**... pp. 45 - 103**

**COMPLETE IN THIS ISSUE**  
... on blue-edged pages

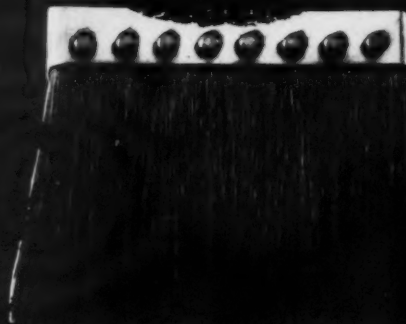
**The 42-page WESTERN MATERIAL HANDLING &  
PACKAGING BUYERS' DIRECTORY. ... pp. 117-158**



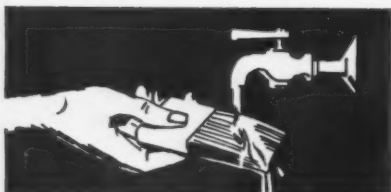
# FLASH-TITE®

FLASH-TITE

## Gummed Tape Tips



### BRUSH CARE IS IMPORTANT!



For maximum efficiency in sealing keep tape machine brushes clean by washing them daily in warm water.

For best results under all conditions use Flash-Tite gummed tape. The special Flash-Tite glue really fights to bite in and hold! To guarantee a full measure of glue and a consistently uniform coating Crown Zellerbach uses Accuray—controlled by atomic energy.

Flash-Tite is unusually "clean"—free from speck dirt—another proof of the extreme care that goes into its manufacture. And "clean" tape—whether plain or printed—always makes your packaging look best. Order Flash-Tite today!

**IMPORTANT!** New Free Booklet, "Flash-Tite Gummed Tape Tips" tells you how to get the most out of packaging with gummed tape. Send for it now!



FLASH-TITE, DEPT. 1-1  
343 SANSOME STREET  
SAN FRANCISCO, CALIFORNIA

Please send me your free booklet, "Flash-Tite Gummed Tape Tips"

FIRM NAME \_\_\_\_\_

TYPE OF INDUSTRY \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

REQUESTED BY \_\_\_\_\_



## CROWN ZELLERBACH

... for more details, circle No. 1 on Reader Service Postcard



mile ...  
after mile ...  
after MILE ...



# MONARCH

## *Mono-Cushions®*

**WEAR BETTER... LAST LONGER... COST LESS!**

BECAUSE . . . *Mono-Cushions* are the only industrial solid tires combining the heavy-duty lug-tread design, originated by Monarch, with the toughest natural rubber stock developed to date. Made from special COMPOUND T-48C, *Mono-Cushions* have superior shock absorption . . . stability . . . performance. Lift truck users' records as well as engineered "torture" tests consistently prove that *Mono-Cushion* tires reduce replacement costs, load breakage, driver fatigue, wear and tear on floor surfaces.

For long-range economy and savings, MONARCH *Mono-Cushions* are the most practical buy. And, in spite of their superior quality, they are competitively priced! That's why they are demanded for replacement by cost-conscious lift truck operators.

**FOR THE COMPLETE STORY ON MONARCH TIRES** . . . ask your truck dealer, or send the coupon, for your copy of the new enlarged CATALOG & HANDBOOK MR-457.



7608-MR



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MONARCH**  
RUBBER COMPANY

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The Monarch Rubber Company  
280 Lincoln Park • Hartville, Ohio  
Please send new CATALOG MR-457 covering the complete line of Monarch industrial solids.  
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See Directory listing page 139





APRIL, 1957  
Vol. XXII, No. 4  
9th Annual  
Material Handling  
& Packaging Issue

## WESTERN MATERIAL HANDLING PACEMAKER PLANT—1957

- Here's the automatic warehouse** . . . . . 46  
PACEMAKER because its electronic computer console and conveyORIZED delivery of goods are a thriving denial of "can't be done" publicity.
- M-H face-lifts a "job shop"** . . . . . 48  
PACEMAKER for a two-year modernization program that provides tops in efficiency, cost reduction and smooth flow of short-run items.
- Towing beats 25,000 headaches** . . . . . 50  
PACEMAKER distribution center gets fastest possible processing time on orders involving any of 25,000 big-to-small items.
- Bulk moves faster by the ton** . . . . . 52  
PACEMAKER for bulk material handling package design that called a halt to in-plant handling of 100-lb. sacks for Western plants.
- Jib, gantry, bridge crane team-up** . . . . . 54  
PACEMAKER because the team handles 38,000,000 lb. of large-sized steel annually in a coordinated, built-for-expansion system.
- M-H at the guts of automation** . . . . . 63  
PACEMAKER system shows how cranes, monorails and conveyors can merge to achieve flexibility and automatic high-speed flow.
- Super 2-way radio reaches dead spots** . . . . . 70  
PACEMAKER for time saved and efficiency increases obtained by the country's first over-one-watt industrial two-way radio net.
- Wirebounds make a tough job easy** . . . . . 75  
PACEMAKER for pioneering cost-cutting ton-per-package use of wire-bound pallet bins for handling dozen grades and sizes of heavy metal.
- Fast handling of perishable citrus** . . . . . 82  
PACEMAKER because it involves a material handling system designed for the utmost in speed, sanitation and gentle handling for citrus fruits.
- Smart packaging beats shipping losses** . . . . . 86  
PACEMAKER packaging scheme for shipping delicate electronic equipment world-wide with almost complete elimination of damage loss.
- Smart outdoor storage scheme** . . . . . 93  
PACEMAKER because back-row "static stock" problems have been eliminated, product flow smoothed out and bottlenecks run right out.
- On-street, in-plant lift-tow truck set-up** . . . . . 100  
PACEMAKER for getting maximum use of lift trucks and safely transporting goods over busy, weathered streets between several buildings.
- Today's best manuals on • racks, bins, shelving • steel strapping equipment • conveyor belts and idlers** . . . . . 105

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The 42-page Western Material Handling & Packaging Buyers' Directory . . pp. 117-158

WESTERN INDUSTRY — April 1957



# BAKER announces an ALL NEW PNEUMATIC-TIRED FORK TRUCK



## Trail Axle

Double-yoke construction for extra strength. Longitudinal mounting in jumbo rubber blocks to provide lateral oscillation and absorb ground shocks.

## Power Unit

Heavy-duty industrial gas engine with extra stamina for continuous rugged service. Features maximum fuel economy—minimum maintenance.

## Power Steering

Standard at no extra cost. Effortless full-time power steering means less operator fatigue, greater safety and more work per day.

## Lift and Tilt Controls

Conveniently located and easily manipulated levers for positive control of hydraulically-operated hoist and tilt motions.

## Drive Axle & Transmission

Rugged Timken industrial truck axle and heavy-duty transmission, with two speeds, forward and reverse.

## Single or Dual Wheels

Large pneumatic tires on drive wheels, with deep treads for maximum traction. Dual wheels available for extra heavy duty, better flotation and added stability.

**Brakes**—Hydraulic self-energizing, full-floating type—in drive wheels. Self-energizing in both forward and reverse. Duo-grip, two-shoe independent parking brake on transmission shaft.

**This Baker FGF-40, 4,000-lb. YARDLOADER**, first in the new line of Baker pneumatic-tired gas fork trucks, has many new design features for greater maneuverability and more dependable performance. It is *fast*—top speed with load, 8.6 mph. It is *compact*—only 48 inch wheelbase, and minimum overhang—and *only 79 inch turning radius*. Low center of gravity makes this possible without sacrificing stability.

**Absence of cowl** provides maximum visibility. Power steering and many other driver conveniences make it one of the easiest handling fork trucks—and one of the safest. Full 130-inch lift, with single or dual cylinder. Truck-loading mast available with 110-inch lift and 71-inch overall height . . . For complete information ask for Bulletin 1382.

**Baker**

Industrial trucks

**THE BAKER-RAULANG COMPANY**

1290 WEST 80th STREET • CLEVELAND 2, OHIO

A Subsidiary of Otis Elevator Company



761

... for more details, circle No. 3 on Reader Service Postcard  
See Directory listing page 120





# STORE

## in low-cost, clear-span Soulé Buildings

**Safe, dry Soulé Buildings** make economical warehouses for any commodity.

Their post-free interiors provide maximum *usable* storage space, let you stack wall-to-wall all the way up to the ridge! Clear-span also means you can install crane-ways and use other mechanical handling equipment.

Wide double sliding doors are big enough for truck-trailers and carry-alls.

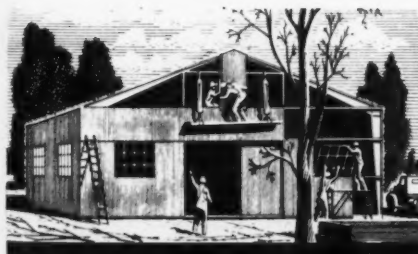
**Economical Soulé Buildings.** Mass production of building parts plus fast erection by our crews assure low initial cost. And the rugged steel frames with either corrugated galvanized steel or aluminum sheets practically eliminate maintenance expense. Soulé Buildings are made in a wide range of sizes to fit any need or budget.

**Soulé is the West's largest Building Manufacturer**





# MORE



**Ready in days!** Building parts are mass-produced, ready for quick erection. Within days after our crews arrive, you're using your new Soulé Building.

**Attractive exteriors.** Your contractor can add a modern, distinctive facade to your Soulé Building at half the "custom" building cost!



**Expand easily at low-cost!** All-bolted construction helps you add length, width or wings to your Soulé Building quickly at low-cost.



4116

## SOULÉ STEEL COMPANY

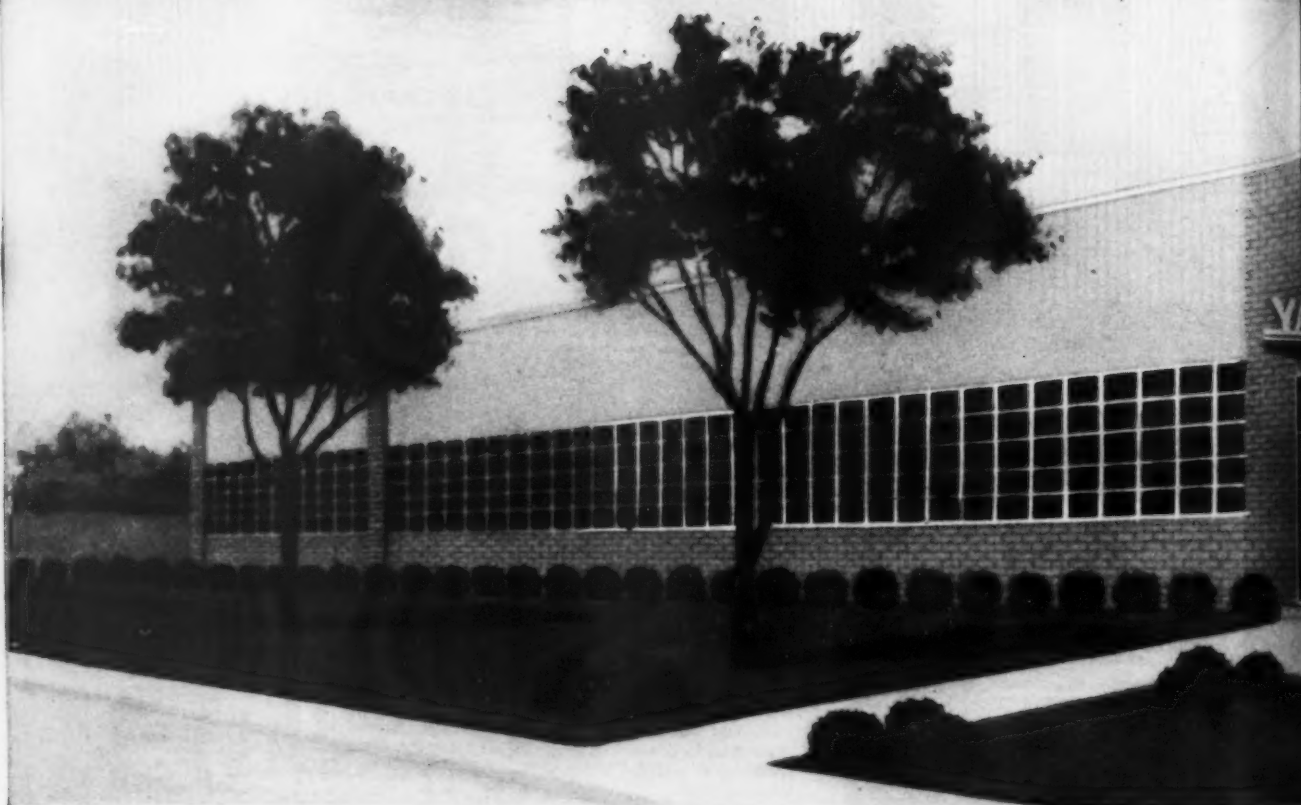
San Francisco 1750 Army Street, Valencia 4-4141 • Los Angeles 6200 Wilmington Avenue, LUdlow 5-0911  
 San Diego 1975 Fifth Avenue, BElmont 2-1071 • Portland 2630 N.W. St. Helens Road, CApitol 3-5154  
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**NOW  
FROM YALE**

# **FASTER SERVICE**



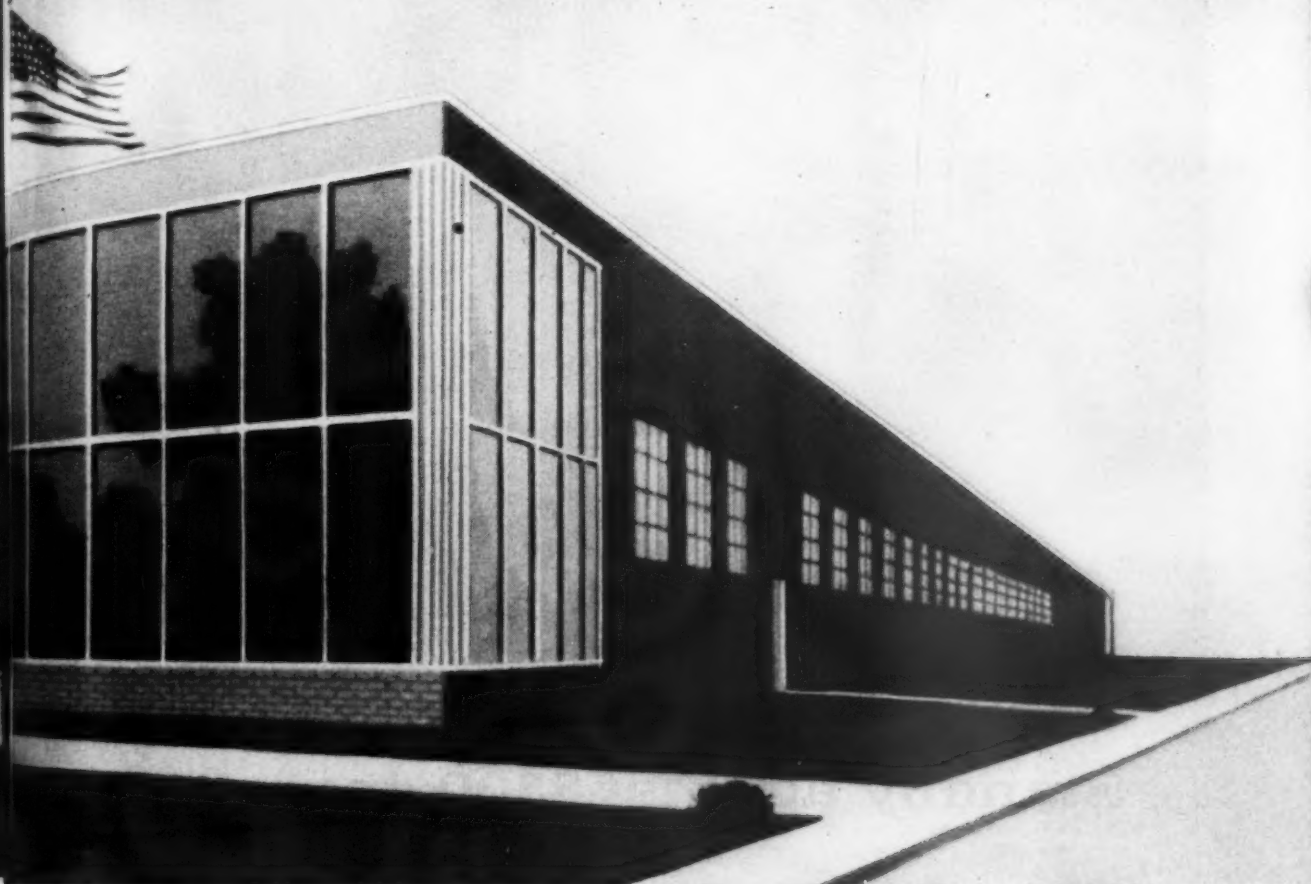
**New California plant—Yale's first in the West—manufactures a complete line of Yale industrial lift trucks... makes readily available today's most advanced materials handling equipment... serves as a major parts stocking depot.**

Now—Yale trucks built in the West—close to industry throughout the West. From the modern new Yale plant in San Leandro, California, there will be available, for quick delivery, a complete line of Yale industrial lift trucks—equipment with Yale's many premium engineering features included as *standard* to meet the increased handling needs of expanding Western industry. Yale also makes readily avail-

able, from its San Leandro plant, the replacement parts you may need for trucks you now own. Thus, as a major parts stocking depot as well as the West's most up-to-date facility for manufacturing materials handling equipment, this new plant offers industries large and small both faster service and the most advanced industrial lift trucks built today. Call or write your Yale Sales and Service Representative.



# FOR THE WEST



New Yale plant in San Leandro, California—now building Yale Trucks for Western industry. This development is another example of Yale's continuing effort to give the West the best in materials handling equipment and service—as

**YALE BUILDS FOR THE  
NEW ERA**

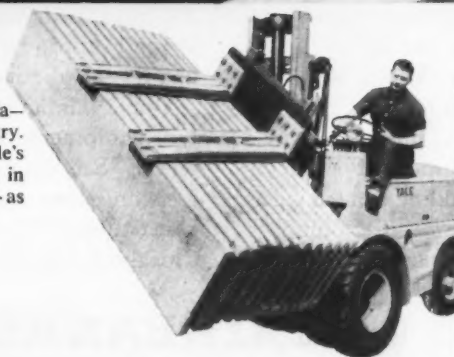
# YALE\*

\*REG. U.S. PAT. OFF.

## YALE & TOWNE

THE YALE & TOWNE MANUFACTURING COMPANY, MATERIALS HANDLING DIVISION. MANUFACTURING PLANTS IN PHILADELPHIA, PA., AND SAN LEANDRO, CALIF.

**See Directory listing page 149**



The complete line of **TROJAN** front-end Loaders will also be manufactured at the new Yale San Leandro Plant... **TROJAN** replacement parts will be stocked there.

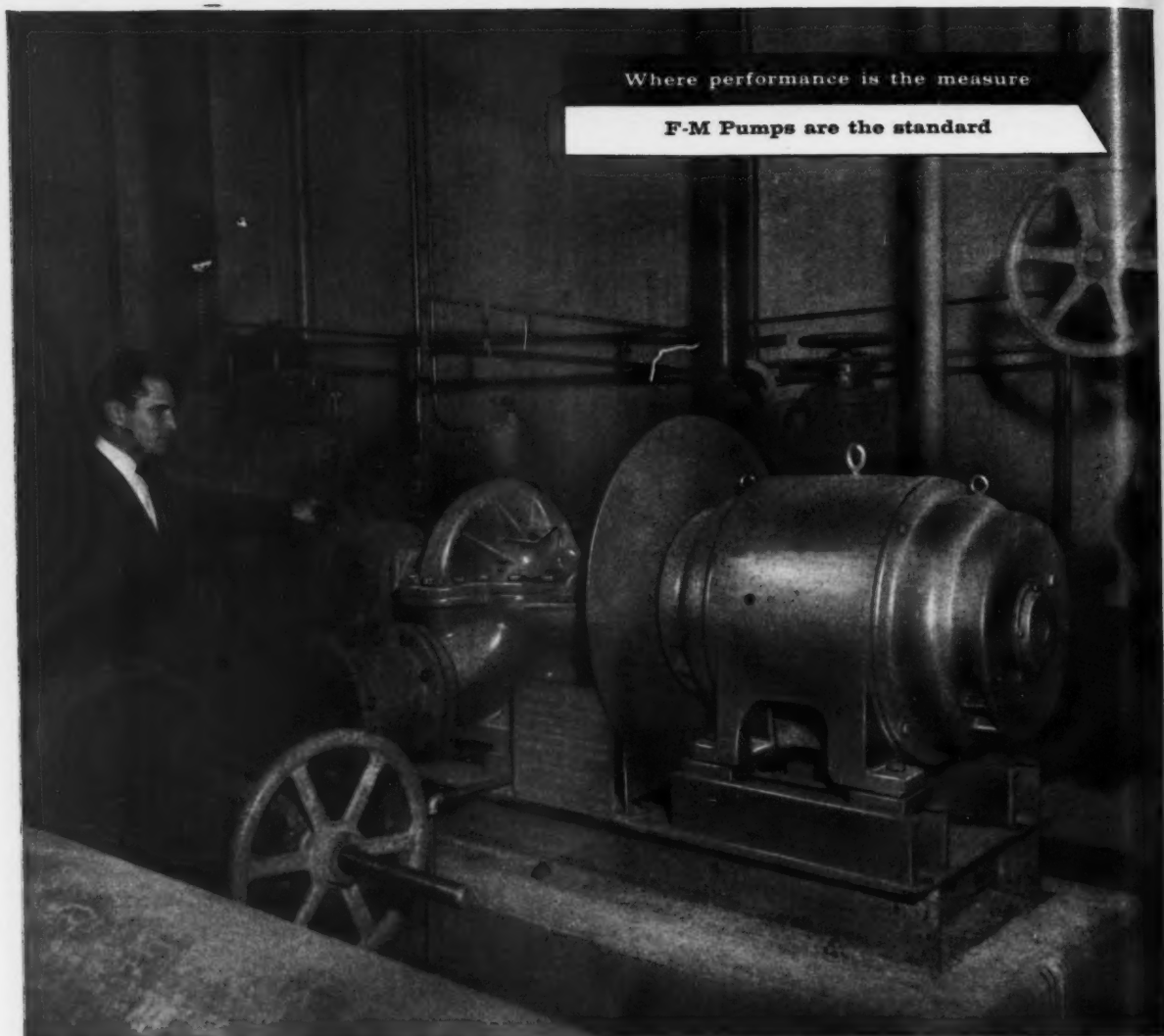


## INDUSTRIAL LIFT TRUCKS AND HOISTS

**GASOLINE, ELECTRIC & LP-GAS INDUSTRIAL LIFT TRUCKS • WORKSAVERS  
WAREHOUSERS • HAND TRUCKS • HAND AND ELECTRIC HOISTS**

**... for more details, circle No. 5 on Reader Service Postcard**





Where performance is the measure

**F-M Pumps are the standard**

Fairbanks-Morse 6" dual-driven fire pump in jet engine testing laboratory.

## Standby against 3500 degrees!

Full power testing of Navy jet engines creates exhaust heat up to 3500° F. a few feet from highly inflammable fuel—a constant fire hazard when in the confines of the testing laboratory.

To insure positive protection against fire losses, Thompson Products Gas Turbine Laboratory, Perry, Ohio, has installed a sprinkling system with a Fairbanks-Morse 6" dual-driven fire pump—capable of pumping 1500 gallons per minute. The

installation is so dependable, so positive that prompt approval was given by the authorities having jurisdiction.

Don't gamble with the heart of your fire-prevention equipment; insist on F-M pumps with F-M power. See your F-M Field Engineer for expert assistance, or write Fairbanks, Morse & Co., Department WI-4, 600 South Michigan Avenue, Chicago 5, Illinois.



# FAIRBANKS-MORSE

*a name worth remembering when you want the BEST*

PUMPS • SCALES • DIESEL LOCOMOTIVES AND ENGINES • ELECTRICAL MACHINERY • RAIL CARS • HOME WATER SERVICE EQUIPMENT • MOWERS • MAGNETOS  
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See Directory listing page 128

WESTERN INDUSTRY — April 1957



## STANDARD ENGINEER'S FIELD REPORT

PRODUCT CHEVRON\* INDUSTRIAL GREASE

CURTISS-MERRILL

CONCRETE PRODUCTS, INC.

FIRM

Whittier, California

# Chevron\* Grease Lengthens Bearing Life 200%



"This eccentric bearing from our cement block machine used to fail in less than three months," says Gene Brock (above), foreman of Curtiss-Merrill Concrete Products Inc., "but since we changed to Chevron Industrial Grease these bearings last up to nine months!

A set of bearings costs \$250, and replacing them means a four-hour shutdown, so Chevron Industrial Grease has brought us real savings."

For More Information on this product, contact your Standard Engineer or Representative, or write Standard Oil Company of California, 225 Bush Street, San Francisco 20, California.

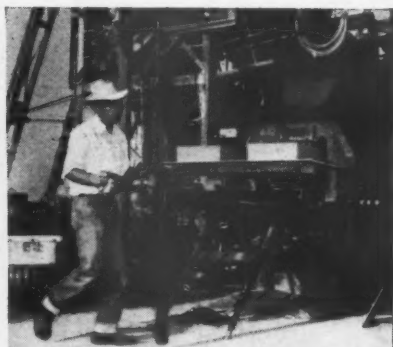


TRADEMARK "CHEVRON" AND DESIGN  
REG. U.S. PAT. OFF.

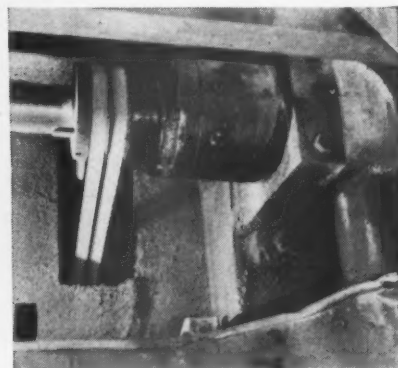
## STANDARD OIL COMPANY OF CALIFORNIA

... for more details, circle No. 7 on Reader Service Postcard

April 1957 — WESTERN INDUSTRY



High Output of machine keeps operator on the run. In 8 hours machine produces 5,000 8 x 8 x 16 blocks. Bearings are lubricated with Chevron Industrial Grease each shift.



Eccentric Shaft turns at 3,000 rpm to provide 1/16" vibration of molds. Chevron Industrial Grease protects bearings despite 400° F. temperature, dust and grit.

### Why Chevron\* Industrial Grease provides Superior Lubrication

- Mixes with any grease
- Melting point, 500° F. plus
- Unusual water resistance
- Extreme work stability
- Top wear-prevention qualities
- Rust protective
- Non-corrosive
- Pumpable over wide temperature range.

\*The Chevron Brand covers the line of industrial products formerly sold under the Calol name. This is a name change only. The high quality and specifications remain the same.





**SHELL CHEMICAL CORP.**—Working in the processing area of this huge Shell plant, a Clarklift rushes boxes of synthetic rubber to shipping area. Commented the foreman, "I like this truck for a lot of reasons but mainly because it's fast and easy to operate...especially in tight areas."

## HERE'S WHAT LOS ANGELES THINKS OF THE NEW CLARKLIFT

There's a gold rush of industrial growth here in Los Angeles. Last year, 123 new industries entered the area—\$344 million was invested in industrial expansion.

Although this remains a land of sunshine and relaxation—there's a rush for ultimate efficiency in operation. Any method that will cut overhead and operating costs looms in importance. It's why eyes opened wide when the new Clarklift came West.

For Clarklift is news to effi-

ciency-minded management. From the marvel of a longer wheel base with a *shorter turning radius*, to the speed and convenience of finger-tip controls, the Clarklift offers more practical design innovations than a half-century of fork truck development has produced.

Superintendent Orovic of American Hardwood Company summed up the general opinion with, "We needed a lift truck that could keep pace with our growing business. We looked over

the whole field . . . decided the Clarklift line was our best dollar investment."

How about your company? For details call your local Clark dealer or write us direct. On request, we'll arrange a demonstration in your plant.

Industrial Truck Division

**CLARK  
EQUIPMENT  
COMPANY**  
Battle Creek 20,  
Michigan  
CLARKLIFT is a trademark of Clark Equipment Company

**CLARK®  
EQUIPMENT**





**SIGNAL TRUCKING SERVICE LTD.**—"We have over 880 pieces of equipment in operation—we handle thousands of rail cars a year," said John E. Carroll, Jr., Vice President. "Of necessity, we depend heavily on fork trucks. That's why we bought these new Clarklifts. They're outstandingly dependable, easy to operate, and what's more, our local Clark distributor gives us excellent and reliable service."



**SMART & FINAL IRIS CO.**—"High product damage could be disastrous in our business—after all we handle over 17 million cases of food and sundry items a year," commented John C. Woods, Vice President. "That's why we like our Clarklifts . . . smooth, safe controls—much faster lifting speeds. Efficiency like that saves us dollars."



**LOCKHEED AIRCRAFT CORP.** "Jet engines are heavy, but delicate. That's why the precise inching and sensitive controls of this truck are important to us."



**AMERICAN HARDWOOD COMPANY.** "Sure I like this truck—best one I have ever driven," commented the driver. "It's easy to drive, easy to get on and off and there's no clutch pedal. I have to move a lot of lumber in a day—this Clark truck makes it simple to do."

... for more details, circle No. 8 on Reader Service Postcard  
See Directory listing page 124

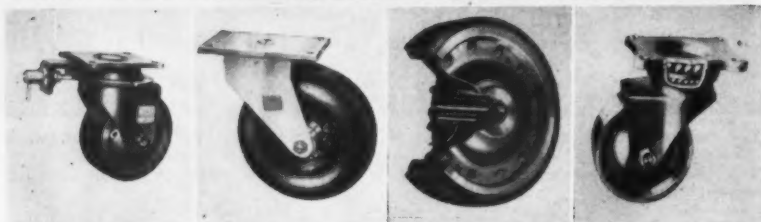


Remember-  
IT PAYS  
TO USE

# DARNELL

CASTERS AND WHEELS

## FOR DEPENDABILITY AND ECONOMY



Always  
**SWIVEL**  
and **ROLL**

Expert engineering  
guidance on  
installations and  
applications

Wide selection  
of virtually all  
types

Facilities and  
abilities to fit  
specific needs

100% reliability

### Check These Greater Dollar Saving Features

**RUBBER TREADS . . .** a wide choice of treads suited to all types of floors, including Darnelloprene oil, water and chemical-resistant treads, make Darnell Casters and Wheels highly adapted to rough usage.

**RUST-PROOFED . . .** by zinc plating, Darnell Casters give longer, care-free life wherever water, steam and corroding chemicals are freely used.

**LUBRICATION . . .** all swivel and wheel bearings are factory packed with a high quality grease that "stands up" under attack by heat and water. Zerk fittings are provided for quick grease-gun lubrication.

**STRING GUARDS . . .** Even though string and ravelings may wind around the hub, these string guards insure easy rolling at all times.

**FREE  
DARNELL  
MANUAL**



*This little book  
saves time and money*

*Consult Us On  
Your Caster Problems  
We Have The Answers*

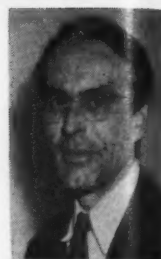
**DARNELL CORPORATION  
— LTD. —**

DOWNY (LOS ANGELES COUNTY) CALIFORNIA  
40 WALKER STREET, NEW YORK 13, NEW YORK  
36 NORTH CLINTON STREET, CHICAGO 6, ILLINOIS

... for more details, circle No. 9 on Reader Service Postcard  
See Directory listing page 126

## LETTERS

"Am I a  
HEEL? . . . or  
a HERO?"



Robert W. Owen

EDITOR—The many comments on my article on the water conditioning gadgets (page 12, February issue), pose an entirely new problem to me. Am I a heel? Or a hero? It appears to depend upon the point of view of the reader previous to his reading the article. Personally, I do not believe that I'm either. The full intention of the article was to report some facts I had observed, which I felt would be of interest and value to your readers.

I wish to congratulate you on your handling of this matter. It is my hope, as it is apparently yours, that some good will come of this. I am willing to help in any way I can, and am willing to correspond with anyone who so desires on this subject.

I would like to state that when I come across a gadget which actually works, I will recommend to the management here that they discontinue manufacture and sale of chemical water conditioners and sell the gadget.

ROBERT W. OWEN  
Chief Chemist, E. W. Smith  
Chemical Co., La Puente, Calif.

### Space utilization ideas

EDITOR—Mr. John C. Dimmer's article "Space Is Where You Find it," December 1956 issue, was read with interest by the undersigned and members of his staff.

There is no doubt that the expanded warehousing activities of West Coast plants have generated new and novel methods of space utilization. Mr. Dimmer's solution is a very good one and should be applicable to many mass-produced items.

We are engaged in missile research and development. The manufacturing activities in such a plant are necessarily limited to prototype and pilot production programs which make it extremely difficult to adapt the mass-

... concluded on page 16



**Still Another AMERICAN First!**

## **WINDSOR FELTS FOR**

# **LIQUID**

# **FILTRATION**

### **OUTLAST ALL OTHER FILTER MATERIALS 10 to 1**

Windsor Felts are unique, fiber bonded, non-woven structures, engineered to serve as economical and efficient filter media for industrial processing. Quick facts:

- Greater product recovery
- Easy cake release
- Can be hosed off without taking from press
- Can be re-used indefinitely
- Produce less plugging
- Do not shrink, are ravel-free and produce clean-cut edges
- Reduce leakage
- Have unusual stability
- Temperatures to 250F

These outstanding properties make Windsor Felts highly suitable for use

on plate and frame, pressure leaf, rotary vacuum, cartridge or specialty filters.

The Engineering and Research Division invites your inquiry and will be pleased to work with you on your specific filtration problem and make recommendations.

For the newest in economical filter material send for Data Sheet #18 WINDSOR FELT-LIQUID FILTRATION, making request on your firm's letterhead.



## **American Felt Company**

TRADE MARK



**GENERAL OFFICES: GLENVILLE ROAD, GLENVILLE, CONN.**

PACIFIC COAST: A. B. BOYD CO., 1235 Howard St., San Francisco, also 763 E. 14th St., Los Angeles 21, Calif.; 930 S. E. Oak St., Portland 4, Ore.; 404 Dexter Ave., Seattle 9, Wash.  
PLANTS: Glenville, Conn.; Franklin, Mass.; Newburgh, N. Y.; Detroit, Mich.; Westerly, R. I.  
ENGINEERING AND RESEARCH LABORATORIES: Glenville, Conn.

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# daylight's free!

slash  
lighting  
costs

with

**Corrulux**



## HERE'S PROOF:

...in this 57,000 square foot fabricating plant.

ESTIMATED LIGHTING COST — \$600.00 PER MONTH  
(1/2 HR. DAY, NO SKYLIGHTS)

ACTUAL LIGHTING COST — \$100.00 PER MONTH  
(WITH CORRULUX)

SAVINGS — \$500.00 PER MONTH

Obviously, one year's savings will more than absorb original Corrulux cost — take it from there. Just figure your added profits in ten years!

For new construction or existing daylighting problems...let us show you how you can make similar savings.



Corrulux is available in a wide range of sheet sizes and corrugations to match standard roofing and siding.

Flat Corrulux panes are ideal for industrial glazing... permit you to reglaze for the last time.



## Corrulux

L.O.F. GLASS FIBERS COMPANY,  
P. O. BOX 20026, HOUSTON 25, TEXAS

... for more details, circle No. 11 on Reader Service Postcard

## LETTERS

... continued  
from page 14

production plant's techniques for many of the functions which support a repetitive, high-cycle program. And yet, space is a great problem. We find this situation aggravated in the production facilities to a much greater degree than in warehousing. At North American's Downey Plant, where The Autonetics Division and Missile Development Division share a common warehouse, the warehouse layouts are fairly stable, though flexible. We are hampered in complete utilization of facilities due to small quantities of items that vary in size from miniature electronic parts to huge steel sheets. The programs necessarily are not scheduled on a repetitive basis, hence layouts are very temporary in nature.

We use lift trucks and overhead cranes, supplemented with flats and tractor trains, for movement of parts. We have several types of fixed racks for binning, and painted lines on the floor delineate bulk storage area.

Within the factory, in areas where layouts for production are tight, the narrow aisles are negotiated with walk-along lifts. The majority of our aisles are 10 to 12 ft. wide, some even larger, as dictated by the size of sub-assemblies.

CHRISTY LEMBESIS,  
Unit Leader, Dept. 488, Production  
Methods, North American Aviation  
Inc., Downey, Calif.

## Boon to cost reduction

EDITOR—Thank you for your prompt attention to my request for information on the blueprint folding machine described in a case history appearing in the January 1957 issue.

I note that your magazine is getting better with each issue. Your January issue on cost reduction was excellent. Somehow, with the "busy-ness" of present day business, ideas as presented in that issue can't be exchanged on a personal basis. Your magazine serves as an excellent medium.

M. FUNABIKI  
Engineering Control Dept., Dalmo  
Victor Co., Div. of Textron, Inc.,  
Belmont, Calif.

(It's taking plenty of "busy-ness" by the WI editorial staff these days to provide the kind of service to our readers that will merit for the magazine its position as "The Essential Publication for Manufacturing Management in the New Industrial West." Letters like this help to make our efforts worth the extra-while.—Ed.)



## A Multipress case study



*Multipress, used here for staking chromium-plated pepper mill lids, saves 11¢ per unit for specialty manufacturer.*

# **MULTIPRESS<sup>®</sup> saves** **specialty manufacturer 11¢ per unit**

By using a Denison hydraulic Multipress equipped with simple interchangeable tooling, The George S. Thompson Corporation, South Pasadena, California, manufacturer of the Olde Thompson line of pepper mills and gourmet accessories, is now saving 11¢ on each pepper mill produced.

Previous methods for three sub-assembly operations cost the company 15¢ per unit. With the hydraulic Multipress, costs for these three operations have been reduced to 4¢ per unit. In addition to this significant cash savings, rejects have been virtually eliminated and production has been substantially increased.

The interchangeable fixtures on the index table permit the Multipress to be used for short-run jobs. Downtime for change-over is eliminated.

Learn how Multipress can reduce your production costs. Write Denison Engineering Division, American Brake Shoe Co., 1184 Dublin Road, Columbus 16, Ohio.

Write for Datalog  
ASY-5 describing  
this money-saving  
method.



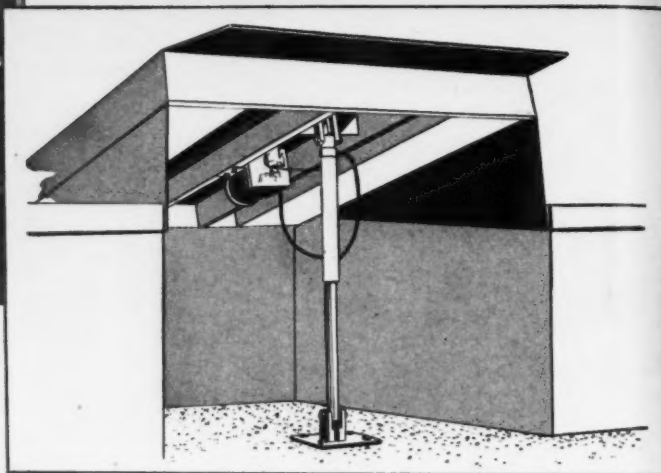
HYDRAULIC PRESSES • PUMPS • MOTORS • CONTROLS

... for more details, circle No. 12 on Reader Service Postcard

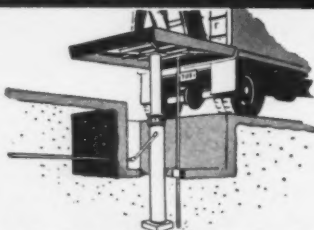




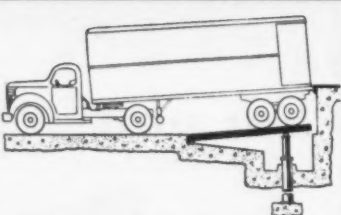
## UNIQUE DESIGN AND RUGGED CONSTRUCTION



**GLOBE PLATFORM LIFT**



**GLOBE TRUCK LEVELER**



## OF GLOBE TRANS-O-MATIC RAMPS ASSURES SUPERIOR PERFORMANCE...ECONOMY

There's no waiting to "bridge the gap" for loading and unloading when you use Globe Trans-O-Matic Ramps. These hinged Ramps are instantly in position... provide a strong, smooth bridge from dock to truck bed regardless of difference in levels.

The unmatched design and sturdy construction of Globe Trans-O-Matic Ramps assure you long, satisfactory performance. High load capacity—up to 20,000 lbs. for either cross-over or roll-over—is made possible by Globe's box and channel design. Ramp lip "floats" with vehicle bed 15" up or down. Automatic safety lock instantly holds Ramp in fixed position if truck pulls out accidentally... prevents dumping, injury or damage. Two models, either electric or air-oil, are available.

Write today to Globe Hoist Company for complete data on automatic, adjustable Globe Trans-O-Matic Ramps, and other Globe Industrial Lifts designed for faster, safer materials handling. Information is also available in Sweet's Plant Engineering Catalog.

**GLOBE PACIFIC HOIST COMPANY**  
1461 Canal Avenue  
Long Beach 13, California

WI-805M-TR

Please send me complete information on Globe Trans-O-Matic Ramps and other Globe Industrial Lifts.

NAME \_\_\_\_\_

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

# GLOBE®

## AUTOMATIC ADJUSTABLE TRANS-O-MATIC RAMPS

PLANTS: DES MOINES—PHILADELPHIA—LONG BEACH, CAL.

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WESTERN INDUSTRY — April 1957



## RELIANCE MOTORS

offer top  
efficiency in  
veneer plant



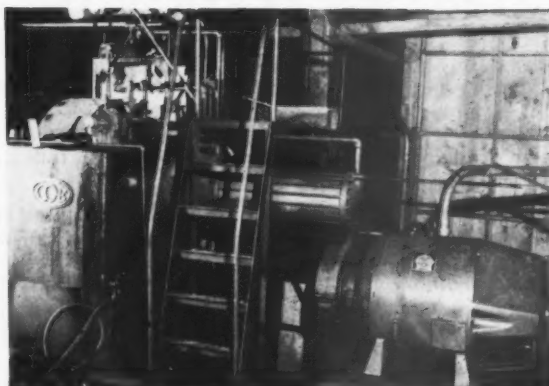
● One in a series on the application of electric motors in modern industry

The superior performance of Reliance equipment throughout the industry convinced the Pope & Talbot Veneer Mill, Port Gamble, Washington that there is no more dependable or efficient method of producing veneer than on a lathe powered by a Reliance Drive.

Operating under damp and adverse conditions, the rugged Reliance equipment used in this installation will continue to operate at peak efficiency for years without costly maintenance.

D-1551

Write for Bulletin A-1555-A.



Powered by a 125/150 hp. Reliance D-c. motor, logs are turned on this lathe and peeled into thin sheets at the rate of 600 feet per minute.

# RELIANCE ELECTRIC

AND ENGINEERING COMPANY

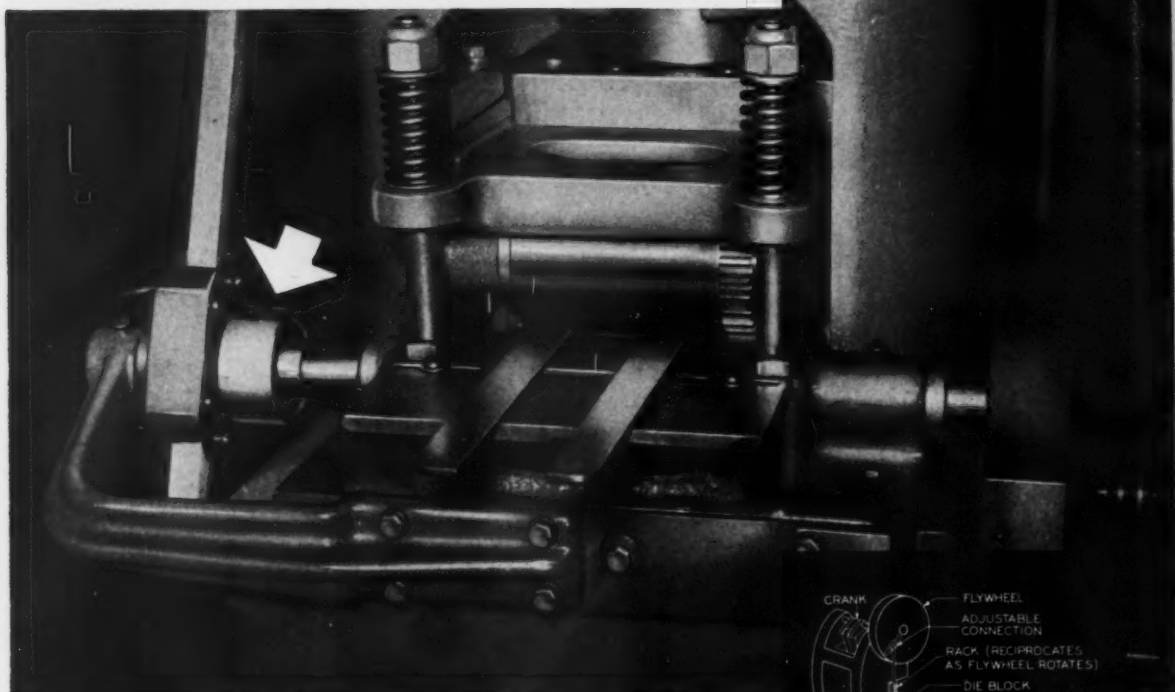
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**DON'T JUST REPLACE—MODERNIZE!**



## HERE'S WHY MODERN FEEDING MECHANISMS BEGIN WITH FORMSPRAG CLUTCHES

Ever closely inspect a new punch press? Chances are you will find that a component of the feeding mechanism is a Formsprag Indexing Clutch—replacing obsolete methods of feed control.

There is good reason for this. The machine builder has found that Formsprag Indexing Clutches last longer; give uninterrupted performance—and eliminate noisy ratchets and larger, roller type clutches. Backlash is completely eliminated. Patented "D-Shaped" sprags offer the most precise indexing method available—provide greater torque in less area, too. This same performance can be yours and the change-over is simple.

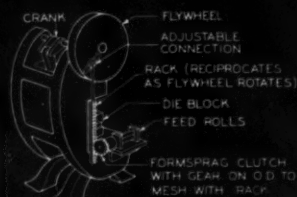
Next time you're replacing a feeding mechanism, see how easy it is to modernize with a Formsprag Indexing Clutch. Your Formsprag distributor has a complete line of standard models.



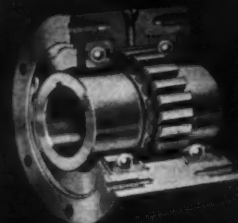
### THE COMPLETE STORY ON MODERN FORMSPRAG CLUTCHES

This new 26-page catalog shows how easy it is to replace clutches on old-style feeding mechanisms with modern Formsprag Clutches. All standard models are listed. Write today.

OVER-RUNNING, INDEXING, AND BACKSTOPPING CLUTCHES. YOUR LOCAL POWER TRANSMISSION DISTRIBUTOR STOCKS THEM; OR, WRITE



Shown is a rear quarter view of a typical punch press. Feeding occurs as press ram descends and ascends. Stock is fed in half-way up the stroke and half-way down the stroke.



### NEW—BALL BEARING SEALED CLUTCHES

Formsprag double ball bearing clutches incorporate mechanical seals to insure retention of oil during indexing. They are available in standard bore sizes from your distributor.

A14-4C

# FORMSPRAG COMPANY

REPRESENTATIVES in:

- Seattle
- Portland
- San Bernardino
- Fresno

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23619 Hoover Road • Van Dyke, Michigan

WORLD'S LARGEST EXCLUSIVE MANUFACTURERS OF OVER-RUNNING CLUTCHES

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WESTERN INDUSTRY — April 1957





Another **STANLEY STEEL STRAPAPPLICATION\*** on the job

## Making 3 times 16 equal ONE

3 tiers of cylinder head forgings, 16 forgings to a tier, make a sum total of 48. But secured to a pallet by the Stanley "Uni-Tie" Method, all 48 become ONE compact package, easier for this Cleveland manufacturer to handle, store and ship. Using the Stanley Electric Skid Magazine Power Tool, every strap is effortlessly and speedily pulled up to the same pre-determined tension, so there's no danger of the strapping loosening or the load shifting.

Perhaps teaming up the Stanley "Uni-Tie" Method with the Stanley ESM Tool is the way for you to save time, space, man-power or eliminate costly containers. But whatever your packaging or shipping problem, Stanley has ways to solve it. **WRITE FOR YOUR FREE COPY** of the "Stanley Strapplication Manual of Packaging and Shipping" to **STANLEY STEEL STRAPPING**, Division of The Stanley Works, Dept. D, 1216 Lake Street, New Britain, Conn.



*\*The system-atic way to solve specific packaging and shipping problems*

**INSURE IT-SECURE IT-WITH STANLEY STEEL STRAPPING**

**AMERICA BUILDS BETTER AND LIVES BETTER WITH STANLEY**

# STANLEY

This famous trademark distinguishes over 20,000 quality products of The Stanley Works—hand and electric tools • drapery, industrial and builders hardware • door controls • aluminum windows • metal parts • coatings • steel and steel strapping—made in 24 Stanley plants in the United States, Canada, England and Germany

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See Directory listing page 145





## If the workers don't like it, your material handling system can flop

A NOTED WESTERN material handling consultant has been sounding a strong warning during the past few months—the success of a new material handling system in any plant depends in great part on the human element!

Speaking before many Western groups, Clay Colley, Material Handling Engineer for the Donald R. Warren Co., Los Angeles engineering firm, has been plugging away at trying to convince Western plant management men of the importance of workmen attitudes in obtaining desired results from material handling innovations.

If you have any doubt that his assertion is correct, read below about a reportedly illegal walkout-strike observed by WESTERN INDUSTRY editors at a Northwest plant just a couple of weeks ago that resulted chiefly from worker suspicion and mistrust of the changes in a departmental material handling system.

### Why is the human element so important?

In Clay Colley's words, here is why the mental reactions to a new system provide the key to the system's success.

Although it is true that the average material handling system is designed for the sole purpose of lowering operat-



CLAY COLLEY, Material Handling Engineer for the Donald R. Warren Co., Los Angeles, has been sounding the warnings.

ing costs, nevertheless the chief goal is the lightening of the burden of the men working with the equipment. New systems will usually reduce the number of workmen required, but they also lighten the burden of the workmen who will remain on duty after the system is installed. The best workmen will usually be retained to operate the new

system and they must believe in it and like it as much as do the supervisors.

Supervisors normally will like any such innovation that lightens their burdens too—through a reduced number of employees, better manufacturing conditions, a cleaner plant, less rejects, etc. These factors, however, are chiefly on the physical side of the work involved. And here is where the big problem comes in—the mental side.

Supervisors and workmen both must like the system from the start and have the proper attitude. Adverse mental attitudes can do more damage than poor design. Supervisors are the key men here; they must think and talk in terms of its success or the workmen will not believe in it. But basically the problem is also a challenge to top management at any plant. Management men cannot be expected to talk with every laborer, foreman or supervisor before a change is made, but they are responsible for planting the "seeds of cooperation" all along the line from the top down.

In view of these thoughts, let's take a look at . . .

### What happened at Northwest Chair Co.

In producing modern furniture, Northwest Chair Co. at Tacoma, Wash., is in a highly competitive industry. This means that the plant's management men are constantly exploring new avenues of cost reduction that will reduce operating costs and keep the firm's prices in line with those of competitors while maintaining profit margins.

All along, they have recognized too that union and employee resistance to any attempts at improved productivity is always a possibility.

A few months ago, the firm called in an engineering consultant company to make a survey leading to the establishment of production standards for finishing operations, thereby forming the basis for a standard cost system. The survey revealed that in the finishing department (where the system was previously thought to be ideal), many methods were being used that were not efficient and should be revised, including changes in a fully automatic conveyor system.

### Trouble along the conveyor line

Finishing procedures were carefully examined and it became apparent that more effective operation of the cable driven conveyor system was of prime importance if greatest efficiency was to be achieved. In this department, where 25 people worked, it was apparent that the difference between efficiency and inefficiency was in (1) the choice of conveyor speeds, (2) the method of loading the items on the conveyor, and (3) the proper scheduling of items to be finished.

It was determined by means of time study that the controlling points in the entire operation were at the stain spray station and the final lacquer station. The degree of efficiency to be obtained depended upon the skill and effort displayed by the operators at these stations, and therefore upon the mental attitudes of these operators toward improvement of this material system.

The selection of the proper conveyor speed was simply a matter of determining, by means of time study, the maximum speed at which a given item could be handled comfortably by a skilled operator at either or both of the control points. It became then merely a case of adjusting the size of the remaining work force to allow for completion of the 11-step finishing operation.

The method of loading the items onto the conveyor was

... concluded on page 26



# Louden Monorail cuts the cost of Interplant Transport

As companies grow and expand production facilities, the problem of interplant transport of materials, parts or semi-finished products is often encountered. Time and again Louden Monorail proves to be the perfect answer. With Louden's Selectomatic Control, such an interplant transport system can be virtually automatic.

The Louden Selectomatic Interplant Transport System at the Marion, North Carolina, plants of the Clinchfield Manufacturing Company is a good example. Here the problem developed of transporting tons of cloth daily between three separate buildings. 650 feet of Louden Monorail with a weather proof car in almost continuous operation provides the perfect answer. The car can be raised and lowered as required for charging and discharging loads; the destination desired is preset by the control; transport is speedy, trouble-free, automatic. It is estimated three men with trucks would have difficulty doing the same job.

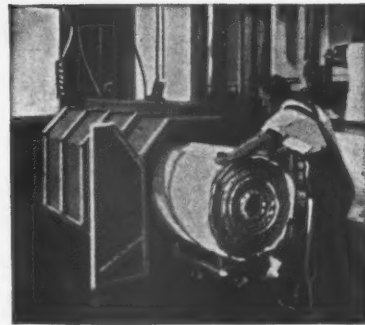
Louden Selectomatic Interplant Transport Systems can do many things not required in the Clinchfield installation described. It can automatically transport materials unattended from point to point anywhere in or about your plant, and it can select the shortest and most direct route to its destination.

It can travel from floor to floor and building to building, open doors to let itself through and close doors behind it . . . building doors, floor doors, oven doors. It places loads in ovens or in banks of infra-red dryer lamps, turning the heat on and off as needed. It stops promptly when there is a load ahead or when it does not have the right of way, and resumes travel when the way is clear. It stops accurately at its destination and even loads and unloads its own carriers with certain classes of materials. It returns empty carriers to point of origin or places itself in storage awaiting its next call.

Louden Automatic Materials Handling is the guaranteed product of the pioneers and oldest company in the field of specialized monorail handling. Both the Louden field representatives and the factory engineers are highly trained specialists in the field of overhead materials handling. When you have a materials handling problem or any plant problem involving lifting and transporting loads, call on Louden for suggestions. This will cost you nothing but may prove to be the most profitable move you have ever made.

## THE LOUDEN MACHINERY COMPANY

7104 Superior, Fairfield, Iowa  
A Subsidiary of Mechanical Handling Systems Inc.



Operator loading carrier with two 650 pound beams of domestic print cloth prior to transport from loom room to cloth room.

Below:  
Operator raising carrier into position, selecting destination by push button. Carrier automatically stops at desired destination.



Below:  
Carrier completing trip automatically and unattended on 650 feet of Monorail from Plant #2 to Plant #1, leaving all streets and alleys free of congestion.



Get the latest information on the best in modern materials handling systems. Write today for your copy of "Economical Material Handling", a 52 page book full of how-to-do-it ideas. If you are interested in automation, ask for the new book on Louden Automatic Dispatch, "Automatic Materials Handling". With either you will receive the latest information on Louden Shok-Pruf Electrification, new safety in power for cranes and monorail systems.

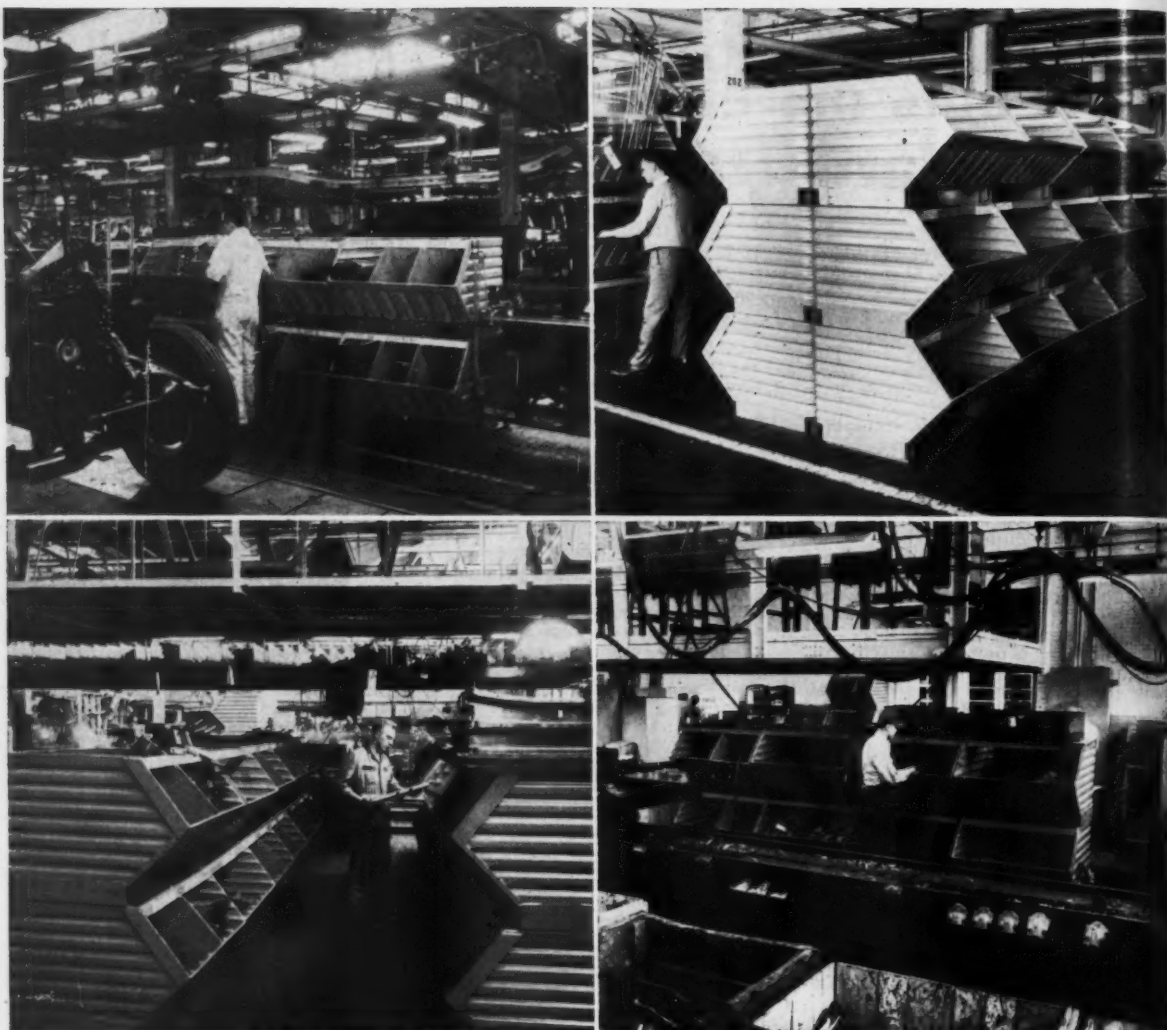


# Louden

## MONORAIL & CRANES

SINCE 1867 . . . THE FIRST NAME IN MATERIALS HANDLING  
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See Directory listing page 137





**Simplified Handling and "On-Stream" Inventory** of a wide variety of parts and assemblies has saved International Harvester's Fort Wayne Motor Truck Plant substantial production hours and hundreds of feet of floor space. This saving was made possible by the new Powell designed tapered, open-end stacking unit that is equally efficient as a storage bin or a working hopper box. This is another example of Powell's long-recognized ability to design and build handling equipment to exactly meet job requirements.

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IRA G. PERIN COMPANY  
575 Howard Street  
San Francisco 5, California  
GARfield 1827

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J. W. LAFFERTY COMPANY  
11371 S. Atlantic Blvd.  
Los Angeles 22, California  
RAYmond 3-5233

#### WASHINGTON

AIR MAC INC. OF WASHINGTON  
3838 Fourth Ave. S.  
Seattle 4, Washington  
MU-3388

#### OREGON

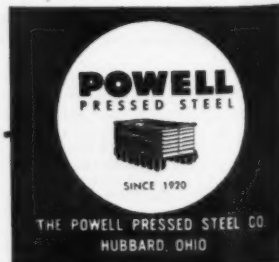
AIR MAC INC. OF OREGON  
1435 S. E. Union Avenue  
Portland 14, Oregon  
FILmore 6524

#### UTAH

EQUIPMENT SUPPLY COMPANY  
16 Post Office Place  
Salt Lake City 1, Utah  
3-9074

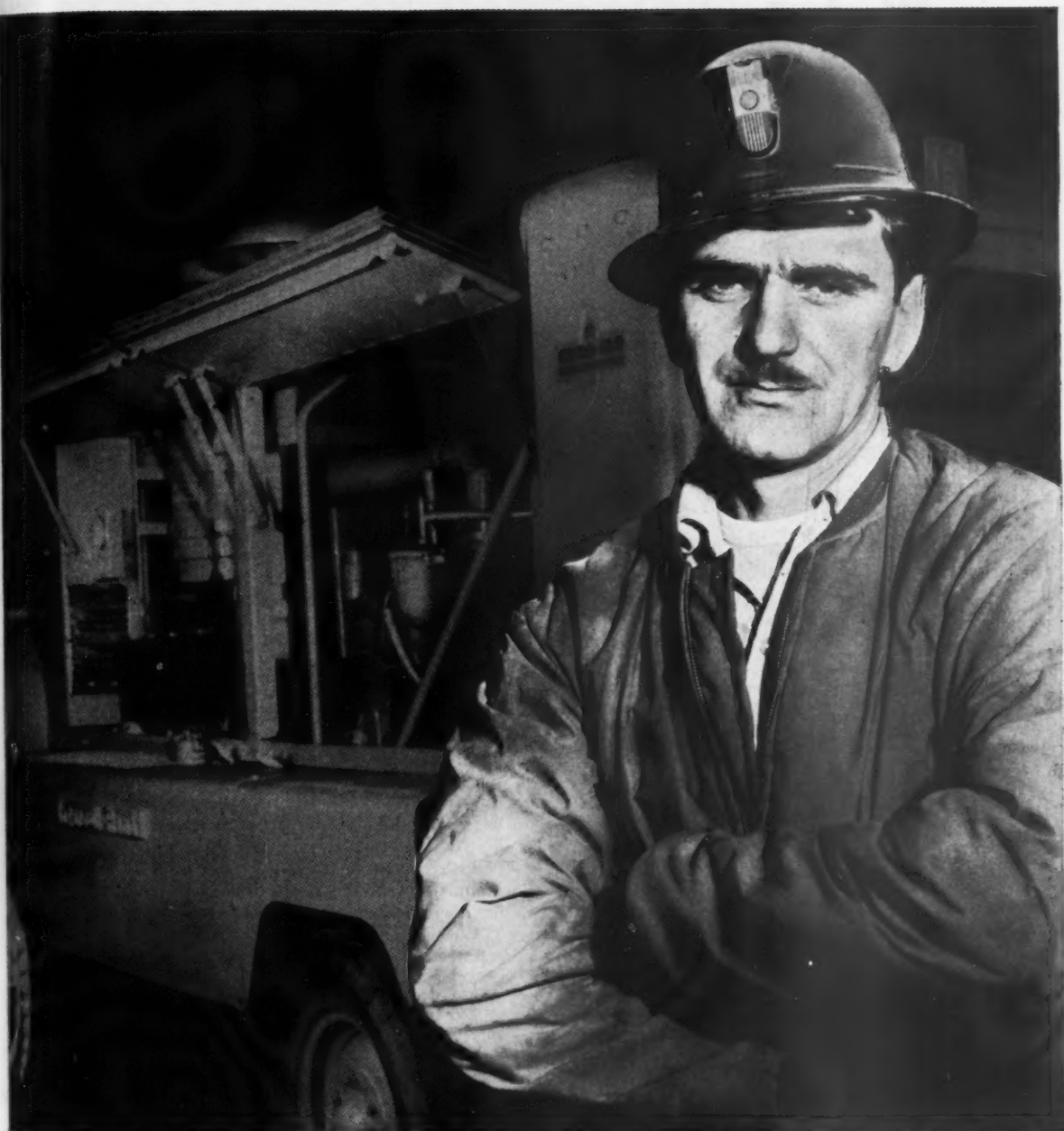
#### COLORADO

McDONALD-HUNT SCALE COMPANY  
1540 Wazee Street  
Denver 2, Colorado  
AComa 5651



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See Directory listing page 142  
**WESTERN INDUSTRY — April 1957**





Ned Fillip, Benton Division, Wah Chang Mining Corp., Bishop, California

## "T5X licked the carbon problem here"

"Until we started using T5X Motor Oil in our diesel-powered compressors we experienced a great deal of trouble with stuck rings and clogged up ports due to formation of hard carbon deposits.

"T5X licked this carbon problem for us here and has substantially reduced our maintenance costs and down time."

As Mr. Fillip has found, T5X is ideally suited for heavy duty diesel lubrication. If carbon is a problem

with your diesel equipment we suggest you ask your nearby Union Oil representative for *amazing* T5X Motor Oil.

### UNION OIL COMPANY OF CALIFORNIA

**76**

Los Angeles: Union Oil Bldg. • New York: 45 Rockefeller Plaza • Chicago: 1612 Bankers Bldg. • Philadelphia: Eastwick Ave. & Edgewood St. Dallas: 313 Fidelity Union Life Bldg. • Kansas City, Mo.: 612 W. 47th St. New Orleans: 644 Nat'l Bank of Commerce Bldg. • Boston: 214 Harvard Ave.

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# Work-Saving POWER

for your pipe tools... anywhere!



Capacity:  
1/4" to 2" pipe,  
conduit; to 12"  
with geared tools;  
1/4" to 2" bolts.

## Portable RIGGID 200 Power Drive with folding legs and tray

Cut, thread and ream easily when this very portable 200 turns pipe for your tools.

Integral legs and handy built-in folding tray make it extra easy to carry and set up.

Speed Chuck operates easily by hand, grips tight forward, reverse. Light, compact, rigid working stance—see all its advantages at your Supply House.

The Ridge Tool Company, Elyria, Ohio, U. S. A.



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### LABOR NOTES

... continued from page 22

carefully considered, and it was necessary to revise many of the existing procedures in order to eliminate a considerable amount of delay time. In some instances, items to be finished had been placed on every other conveyor platform. This, of course, resulted in delay at every work station. Case goods which contained drawers and shelves often required more space on the conveyor than was necessary because conveyor platform space was not fully utilized. In some instances, fixtures had to be designed which made it possible to place odd-shaped items on conveyor platforms in multiples.

The proper scheduling of items to be finished was vital because of the great variety of types in a correlated furniture line. If care was not taken to place each pattern on the conveyor with consideration for the size of the preceding item, the result could make the cost of finishing a chair equal the cost of finishing a buffet. Engineering personnel drew up a schedule based upon time study which designed proper conveyor speeds for the various patterns, and this guide was used by the department supervisor to choose the proper order in which items were to be finished.

#### How the workers reacted

Resistance to management's program of increased efficiency took various forms. One employee at first refused to fill out a necessary production report as a result of coercion by disgruntled fellow workers. Some employees openly expressed the opinion that it was simply a "speed-up," failing to recognize that maximum efficiency is essential if job security is to be maintained. Another employee actually approached management intending to quit as he had been convinced by co-workers that he was being exploited. A discussion of the need for more efficient production with less costly delay time convinced him that the new methods were sound.

A feeling of suspicion and mistrust of time study procedures and of the entire material handling improvement program was apparent from its inception. Although management felt that an incentive program would be beneficial both to employees and themselves, such a program could not be feasible without mutual trust and cooperation of both parties.

#### What everybody must understand

At Northwest Chair Co. management, supervisors and workers are all sustaining losses because of the misunderstanding. A cooperative understanding all along the line in respect to the problem outlined above would turn these losses into gains for everybody.

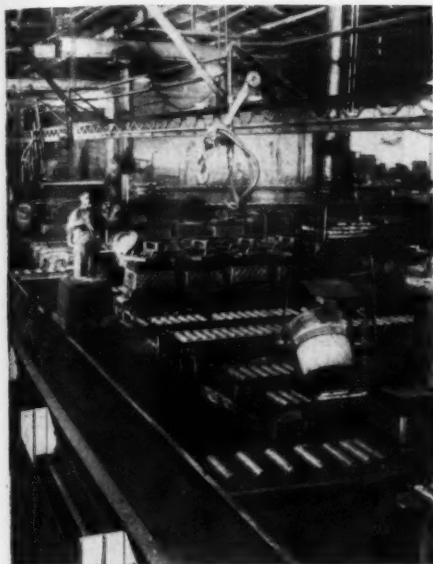
As Mr. Colley points out, material handling during manufacturing is the one item involved in every product which increases the cost without improving the quality or appearance of an article, although it accounts for roughly 36% of the cost of an article.

Especially for the workmen, the improvement of material handling methods will be a big factor in giving the average workman a 30-hr. week within the next 5 to 10 years with no reduction in pay or standard of living.

(It should be pointed out that Mr. Clay Colley has been in no way involved with Northwest Chair Co. in connection with the problem situation outlined above. Juxtaposition of his remarks with the description of Northwest Chair's situation was a logical correlation made by the WI editorial staff.—Ed)



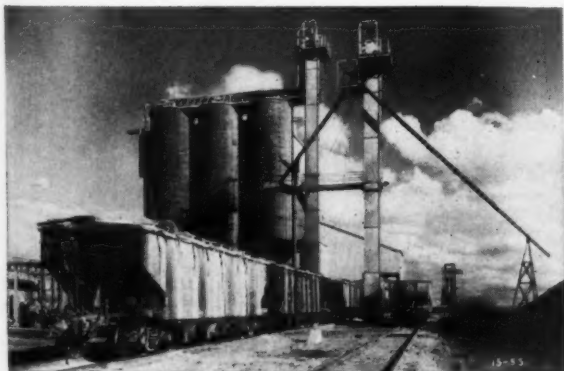
# For the finest in Mechanization



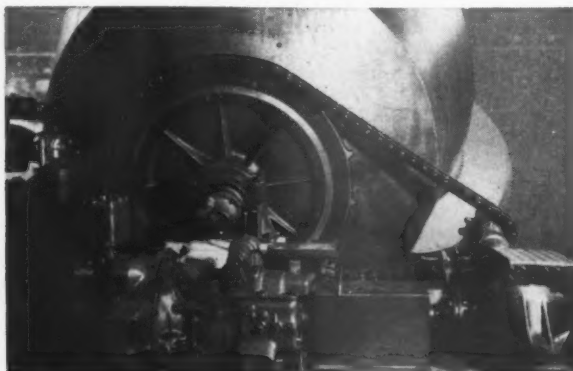
**Puts Vibration to Work**—Hot castings, right from the molds, ride this JEFFREY vibrating conveyor, which shakes sand loose in transit. At the "end of the line", sand is shaken out through a grating, while castings move on to a cooling conveyor. Mechanized setups like this cut foundry costs, boost output and profits.



**Chain reaction: 50% longer life.** Pulp mills like this JEFFREY PW Combination Chain because it has more wearing surface . . . gives up to 50% longer life where abrasive material is encountered. What's new in JEFFREY chain to help cut your costs? Call us and we'll help you find out!



**factory in the Air!** Raw materials are carried skyward by these two JEFFREY bucket elevators. Then they're graded and ground as gravity draws them down again through the processing steps. Whether your materials-handling problems call for working against gravity or putting it to work for you, JEFFREY engineers and JEFFREY equipment are expert at solving them.



**Chain Drives for Autos** were fast going out of style a half century ago. But chain for power transmission on all kinds of industrial products is very much the vogue today, and its use is expanding. Here you see a typical example—JEFFREY chain driving a cement mixer through a JEFFREY STEELCARVE® sprocket. Our engineers will gladly help you determine where you will profit by applying chain to your drives.

**All Jeffrey Products** have these things in common: Proved in years of service, the finest of designs and materials, engineered for the services they're performing. To serve you fast, Jeffrey has established a warehouse at 1862 Rollins Road, Burlingame, California. Telephone Oxford 7-5303.



CONVEYING • PROCESSING • MINING EQUIPMENT  
TRANSMISSION MACHINERY • CONTRACT MANUFACTURING

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27



# **TOWMOTOR**

## **JOB - PLANNED CLAMP**

### **ACCESSORIES**

- Most Complete Variety!
- Easy Job-to-Job Adjustability!
- Swiftly Interchangeable With Forks!

See how Towmotor-engineered hydraulic clamps show their speed and versatility in typical industries . . .

Move bales, barrels, drums, boxes, crates and similar loads? Look into the cost-saving opportunities offered by our wide range of clamp accessories—designed for most efficient Towmotor lift truck operation!

Precise side pressure grips loads quickly, securely and safely without pallets. You save time, money and valuable space. Your handling jobs are expedited and every department benefits! Contact us for full details on Towmotor multi-purpose clamp accessories.

As Towmotor headquarters in the Los Angeles area we will also be glad to work with your materials handling supervisor in other ways, such as:

- Lift truck sales, rentals, leases
- Factory-specified parts and service
- Guaranteed preventive maintenance

Get in touch with us for experienced help, on any material handling problems.

Authorized Distributor for



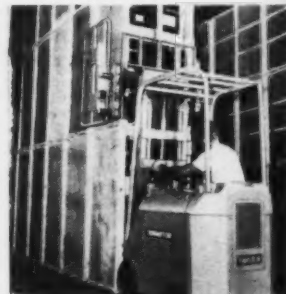
Fork Lift Trucks, Tractors and Accessories



**CLAMP-EQUIPPED** Towmotor Model 400-P swiftly transports three 500-pound bales.



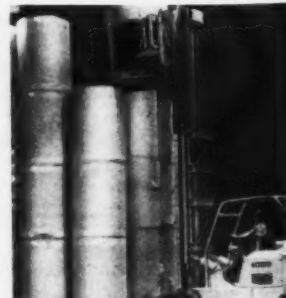
**ROLL CLAMP** on Towmotor Model 460 high-stacks rolls ceiling high.



**CARTON CLAMP** on Towmotor unit safely stacks crated refrigerators 3-high.



**SPECIAL BEER CARTON CLAMP** Towmotor-engineered to store non-palletized cartons.



**UPENDING ROLL CLAMP** on Towmotor telescopic mast stacks 7000-pound rolls to 22 feet.

# **IRVING G. KING & COMPANY**

821 Mateo Street, Los Angeles 21, California

1646 India Street, San Diego, California

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**WESTERN INDUSTRY — April 1957**



IMPROVING OVERALL  
OPERATION THROUGH  
**GERLINGER**  
MASS-HANDLING



## ... how else could this job be handled so well?

Through exclusive features like these a Gerlinger fork lift truck enables each operator to multiply "manpower" and give you a new concept of profitable mass-handling:

- Exclusive Floating-Type Boom Action—faster, friction-free lift
- Counter-active Weight Distribution—better traction and maneuverability
- Pivotal Mounted Steering Assembly—stabilized load on any road
- Heavy-Duty Steel Channel Frame—bonus years of reliable service
- Maximum-Power Torque Converter Drive—smoother operation, less wear

If you move and stack loads between a few hundred pounds and twenty tons, look to the combined Towmotor-Gerlinger line to meet the most diversified specifications. This great new combination brings you the most complete range of fork

lift truck capacities available from one source. More extensive service to match it, too.

Get catalog describing the lift trucks that will do the best job for you. Address: Gerlinger Carrier Co., Dallas, Oregon.

Leaders for 38 years  
in building Fork Lift  
Trucks and Carriers



Gerlinger Carrier Company, Dallas, Oregon is a subsidiary of Towmotor Corporation, Cleveland, Ohio

... for more details, circle No. 23 on Reader Service Postcard  
See Directory listing page 146

April 1957 — WESTERN INDUSTRY

29





**LATEST HEATING, VENTILATING AND REFRIGERATION PRODUCTS AND TECHNOLOGY** will be shown and discussed May 4-8 at the Shrine Exposition Hall in Los Angeles. It will be the The Western Air Conditioning Industries Association's exhibit and conference. Many manufacturers and distributors plan to display the latest in their products and services during the five-day show. And panel sessions—designed to emphasize the importance of modernized or new equipment in the heating, ventilating and refrigeration lines for commercial and industrial use—will be held concurrently.



**ARTHUR J. HESS**, President of the Western Air Conditioning Industries Association, sponsors of the first Western Air Conditioning, Heating, Ventilating and Refrigeration Exhibit and Conference.

**First three days are reserved** for members of the trade only, but the last two days will see the doors thrown open to the public. The sponsoring association also recently announced formation of the Air Conditioning Research Foundation—an organization dedicated to research and educational projects of benefit to the entire industry. More details on the show, conference or other activities of this organization are available from Fred J. Tabery, exhibit manager, 3443 So. Hill St., Los Angeles. Or, if you're in the Los Angeles area, call Richmond 9-1091.

**Exhibitors at this show** will include the following firms:

Aeroquip Corp.  
Air Distribution Products  
Air Equipment Sales Co.  
Air Factors, Inc.  
Airfan Engineering Co.  
Allied Industries  
American Air Filter Co.  
Anemostat Corp.  
H. E. Baker Co.  
Bowman Co.  
Bryan Steam Corp.  
Burke & Co.  
C & S Equipment Co.  
Carnes Corporation  
Comfort Air Sales of Calif.  
Cooling and Heating Engineers  
Cleaver-Brooks Co.

Coast Insulation  
Crane Co.  
DeBothezat Fans  
Donaldson Power Ventilator Co.  
Edgewood Mfg. Co.  
Elliott Engineering  
Electro Air Cleaner  
Jack Evans Mfg. Co.  
Fabling Industrial Supply  
Felt Co.  
Feddars & Quiggan  
Fenwal Inc.  
Fraser & Johnson  
General Air Conditioning  
General Chemical Div.  
Allied Chemical  
General Blower Co.

Green Fuel Economizer  
Jules D. Gratiot Co.  
Jenn-Air Products  
Johnson Service Co.  
Joy Mfg. Co.  
Koppers Co.  
Laars Engineering  
L-O-F Glass Fibers Co.  
Lennox Industries  
MMM Inc.  
Marley Co.  
Master Fan Corp.  
Montgomery Brothers  
McQuay, Inc.  
National Heater Co.  
Natural Gas Equipment Co.  
Oil Heating Equipment Co.  
Pacific Scientific Co.

Prox Co.  
Radiant Heating & Cooling  
Ramset Fasteners  
Refrigerating Specialties Co.  
Rite Engineering & Mfg. Co.  
Russell Sales Co.  
Surface Combustion,  
Kathabar Div.  
M. W. Sausse Co.  
A. O. Smith Corp.  
Stewart Mfg. Co.  
Smallcomb Electric Co.  
Ward Refrigeration  
Water Chemists Inc.  
Weil Pump  
Western Tool Distributors  
Utility Fan

**FORK TRUCK JOCKEYS, MOUNT YOUR STEEDS** and see if you can't cop top prize in the Second Western Lift Truck Rodeo to be held by the Los Angeles Chapter of the American Material Handling Society. Scheduled to be held at Maywood Air Force Depot May 18—that's a Saturday—this second event is the result of tremendous success of the Fork Truck Rodeo held by the sponsors last May. Fork truck operators who have a clean accident slate for the past six-month period are eligible. Any Southern California company operating one or more lift trucks may select its best operators—male or female. Entry fee is \$5.00—cash needed for operation of the rodeo only.

**Trophies, not cash, will be awarded** to winning operators. Both gas and electric 4,000-lb. capacity fork trucks will be provided by local equipment distributors for use in the rodeo. The contest will involve completion of a brief true or false written test covering operation, safety standards, etc. Next will come a trip through an ingeniously devised obstacle course. Design of the course is pinpointed at giving operators the "acid test" on preliminary safety checks, pallet pickups, offset pallet drops, pallet stacking, zig-zag maneuvers, smoothness and safety of operation, etc.

**The operators who zig best at zigg'in' time** and manage the same for the zag-step in each of three groups will compete in a final elimination run. Sounds like all WI readers in the Southern California area ought to join AMHS in their effort to reach the objective of the rodeo—the fostering of greater skill and safety in the operation of both gas and electric fork trucks. Write to the Special Events Committee, P. O. Box 1054, South Gate, Calif. for more info. Or simply circle number 300 on this month's WI Reader Service Postcard (page 173) and we'll be sure you get all the data you need.

## WESTERN MEETINGS YOU SHOULD PLAN TO ATTEND

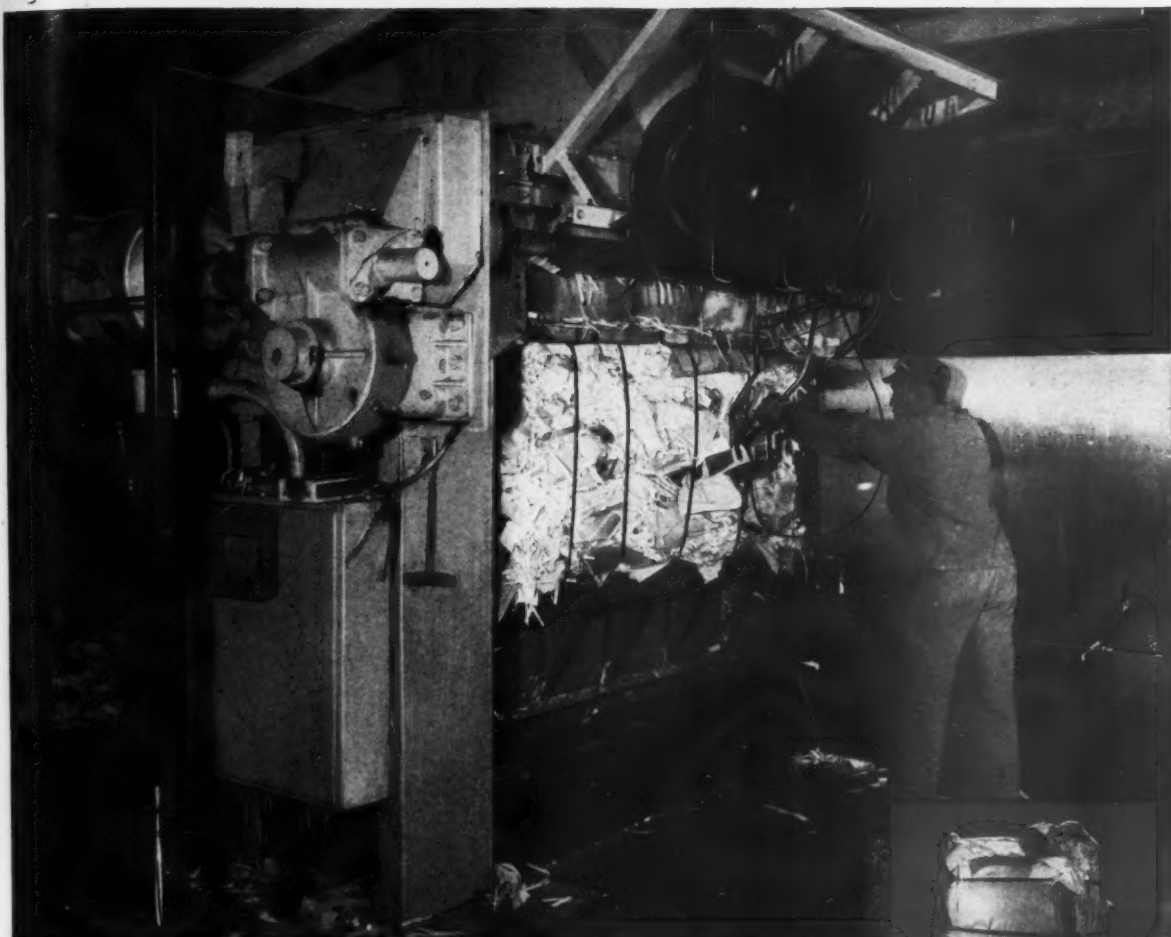
**Apr. 16-17—37th PACIFIC COAST MANAGEMENT CONFERENCE**, regional conference, Claremont Hotel, Berkeley, Calif. Contact Everett Van Every, secretary-manager, Western Management Assoc., 2180 Milvia St., Berkeley, Calif.

**Apr. 18-19—ANNUAL WESTERN REGIONAL CONFERENCE OF AMERICAN INSTITUTE OF INDUSTRIAL ENGINEERS**, Hotel Del Coronado, Coronado, Calif. Contact John Senes, San Diego Chapter, AIIIE, 95 King St., Chula Vista, Calif.

**Apr. 24-26—THE SEVENTH REGION IRE CONFERENCE**, Conference and Federal Bldgs. San Diego. Contact IRE Seventh Region Conference, U. S. Grant Hotel, San Diego, Calif.

... concluded on page 34





## BALE WASTE PAPER?

**New Signode way is faster, easier, cheaper, safer  
... uses your present baling press!**

*Faster and easier* because fewer ties are needed per bale; the inexpensive Signode setup eliminates waste motions of reaching, twisting, splicing; strapping feeds handily from conveniently located overhead dispensers.

*Cheaper* because bales are 29% denser, take 43% less strap per bale, save 25% of room in storage and in trucks; steel strapping stays tight, bales hold shape without bulging and wedging in transit; steel strapping itself can be unloaded from cars or trucks quickly and neatly with a lift truck.

*Safer* because flexible strap ends drop down, are easy to see; no sharp ends poke at man on receiving side; bales are squarer, firmer . . . safer and neater to handle, stack, load.

It's easy to change to this new method—now used by some of the biggest balers in the country. Signode fieldmen know how to adapt it to your present baling equipment . . . are ready to work with you now. If you bale waste paper or any other compressible material or product in any quantity, call the Signode man near you, or wire or write:



## SIGNODE STEEL STRAPPING CO.

2615 N. Western Avenue, Chicago 47, Illinois

San Francisco, 383 Brannan St. • Los Angeles, 659 E. Gage Ave. • Portland, 1519 N.W. Irving St.  
Seattle, 2 Hanford St. • Spokane, 417 Paulsen Bldg.

... for more details, circle No. 24 on Reader Service Postcard  
See Directory listing page 144

April 1957 — WESTERN INDUSTRY





*need precision tools?*

## REPUBLIC SUPPLY *your needs!*

If lack of precision equipment is giving you a Size-38 headache, a solution is at your fingertips. Call Republic's tool specialists who are back-stopped by *complete stocks* of precision tools, top quality brands, and by far-flung facilities that blanket the industrial West. So if you're hipped on micrometers, don't waste time with tape. Just whistle for Republic... the beauty of it is that you get *precisely* what you want... fast.

Moral: Gage your problem broadly.

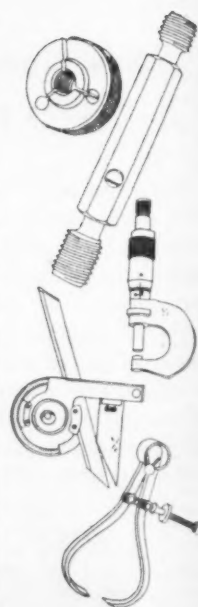
Let REPUBLIC SUPPLY your needs!

### CHECK THESE QUALITY PRECISION TOOLS

Starrett Micrometers and Universal Head Protractors, Card Gages — or what you will — Republic's your best bet. Rely on this one-stop source of supply for *all* your precision tool needs.

**THE** republic supply **COMPANY OF CALIFORNIA**

Main offices in Los Angeles & San Leandro • Phones — Los Angeles: RAymond 3-2511, PArkview 8-7151; San Leandro: LOckhaven 2-0414, ENterprise 1-1060 • Pipe, valves & fittings • abrasives • shop supplies & tools • rigging materials • industrial rubber products • machinery • oil field supplies • fire equipment  
an independently owned and operated company serving western industry



... for more details, circle No. 25 on Reader Service Postcard

WESTERN INDUSTRY — April 1957



# Change motors in minutes— with **FALK** all-steel MOTOREDUCERS



OUT COMES OLD MOTOR ↑



IN GOES REPLACEMENT MOTOR →

## No long and costly "down time" involved

Motors can be interchanged or replaced *in minutes* with the all-steel, All-Motor type FALK Motoreducer. No long and costly "down time" is involved in making the change!

Best of all, replacement is not limited to original make of motor—new NEMA frames may be substituted for old. This versatile Motoreducer operates with any make, speed or type of standard foot-mounted motor within its AGMA rating. No modification, no special shaft, no "partial" motor required.

In addition to unmatched motor interchangeability, this dependable gear drive—the "work horse of industry"—offers: widest choice of output-shaft position (horizontal, vertical, right-angle)...any output-shaft connection...any mounting, including wall and ceiling...standard speed range from 1.5 rpm to 1430 rpm. All these advantages, plus proved efficiency, low maintenance and extra-long life, make the All-Motor type FALK Motoreducer your best buy for any job requirement.

Furnished in sizes up to 75 hp with any make, style or type of motor; or, without a motor if desired. FALK Motoreducers are available from convenient factory, field or distributor stocks, from coast to coast.

Write for Bulletin 3100

**THE FALK CORPORATION, MILWAUKEE, WISCONSIN**

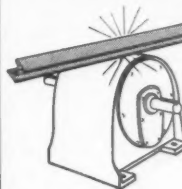
MANUFACTURERS OF:

- Motoreducers
- Speed Reducers
- Flexible Couplings
- Shaft Mounted Drives
- High Speed Drives
- Special Gear Drives
- Single Helical Gears
- Herringbone Gears
- Marine Drives
- Steel Castings
- Weldments
- Contract Machining

# FALK

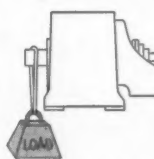
...a good name in industry

## FALK "IN-BUILT" FACTORS assure full dependability— better service—longer life



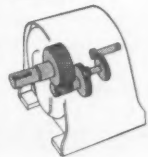
### ALL-STEEL HOUSINGS

Rugged, strong, rigid...all parts heavy steel plate, formed and welded in the Falk Weld Shop.



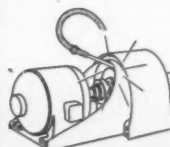
### LARGE OVERHUNG LOAD CAPACITY

Large shafts, oversize bearings...rigid mountings with wide bearing spans to handle maximum loads.



### PRECISION GEARING

Heat-treated alloy steel gearing, precision cut and shaved after heat treatment to eliminate distortion.



### SEALED HOUSINGS

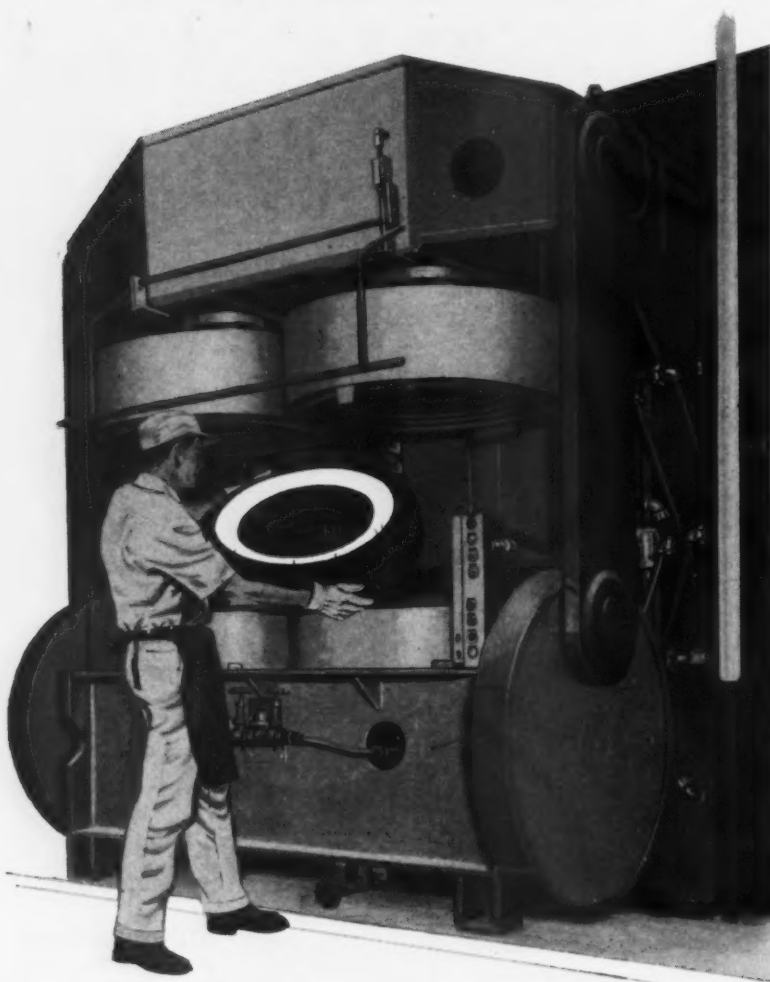
Splashproof, dustproof, oiltight. Dual closures and one-way vents keep oil in, dust and moisture out.

... for more details, circle No. 26 on Reader Service Postcard  
See Directory listing page 128



## Essential tool of the tire industry...

the curing presses which produce tires  
for both passenger cars and trucks.



## ESSENTIAL TOOL OF ALL INDUSTRY

...modern banking services

Such are the facilities of California Bank,  
the industrial business-minded bank  
serving the Industrial Center of the West.

# California Bank

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION

*Los Angeles*

... for more details, circle No. 27 on Reader Service Postcard

## WESTERN MEETINGS

... continued  
from page 30

**May 4-8—WESTERN AIR CONDITIONING, HEATING, VENTILATING AND REFRIGERATION EXHIBIT AND CONFERENCE**, sponsored by Western Air Conditioning Industries Assoc., Shrine Exposition Hall, Los Angeles. Contact Fred J. Tabery, 3443 So. Hill St., Los Angeles.

**May 7-12—19TH ANNUAL CONVENTION OF THE NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS**, Fairmont Hotel, San Francisco. Contact William N. Wilson, executive secretary NAAMM, 228 No. LaSalle St., Chicago 1, Ill.

**May 9-11—INTERNATIONAL ASSOCIATION OF PERSONNEL WOMEN**, national meeting, San Francisco. Contact Miss Viva Armstrong, Pres., c/o California Packing Corp., 218 Fremont St., San Francisco.

**May 13-14—ANNUAL INSTRUMENTATION SYMPOSIUM AND EXHIBIT**, sponsored by Northern California Section, Instrument Society of America, Hotel Claremont, Berkeley, Calif.

**May-15-17—NINTH ANNUAL KILN CLUB MEETING**, Eugene Hotel, Eugene, Ore., Contact Lawrence Woods, President, West Coast Dry Kiln Club, c/o Hult Lumber Co., Junction City, Ore.

**May 16-18—SOCIETY OF NAVAL AND MARINE ENGINEERS**, spring meeting, Southern California Section to host, Lafayette Hotel, Long Beach, Calif. Contact R. K. James, Rear Admiral, USN, Berth 264, Los Angeles Harbor, Terminal Island, Calif.

**May 28-29—SECOND REACTIVE METALS CONFERENCE**, sponsored by Southern California Section, American Institute of Mining and Metallurgical Engineers, Ambassador Hotel, Los Angeles, Calif. Contact C. W. Funk, AIMME, Aerojet-General Corp., Azusa, Calif.

**June 5-7—NATIONAL WARM AIR HEATING INSTITUTE**, national convention, San Francisco. Contact Dar Knowles, chairman, 853 Flood Bldg., San Francisco 2, Calif.

**June 9-13—AMERICAN ROCKET SOCIETY**, national convention, San Francisco. Contact James J. Harford, executive secretary, 500 Fifth Ave., New York, New York.

**JUNE 11-13—THIRD WESTERN PLANT MAINTENANCE & ENGINEERING SHOW AND CONFERENCE**, Civic Auditorium, San Francisco. Contact Clapp & Poliak, 681 Market St., San Francisco.

**Aug. 20-23—WESTERN ELECTRONIC SHOW AND CONVENTION**, sponsored by San Francisco and Los Angeles Sections representing the 7th Region Institute of Radio Engineers and the West Coast Electronic Manufacturers Association, Cow Palace, San Francisco. Contact Don Larson, WESCON, 342 No. La Brea Ave., Los Angeles 36.

**Oct. 15-17—38TH PACIFIC COAST MANAGEMENT CONFERENCE**, regional conference, Claremont Hotel, Berkeley, Calif. Contact Everett Van Every, secretary-manager, Western Management Assoc., 2180 Milvia St., Berkeley, Calif.

**WESTERN INDUSTRY—April 1957**  
For more details, adv. opp. pg., circle No. 28 on Reader Service Postcard →  
See Directory listing page 148, adv. opp. pg.



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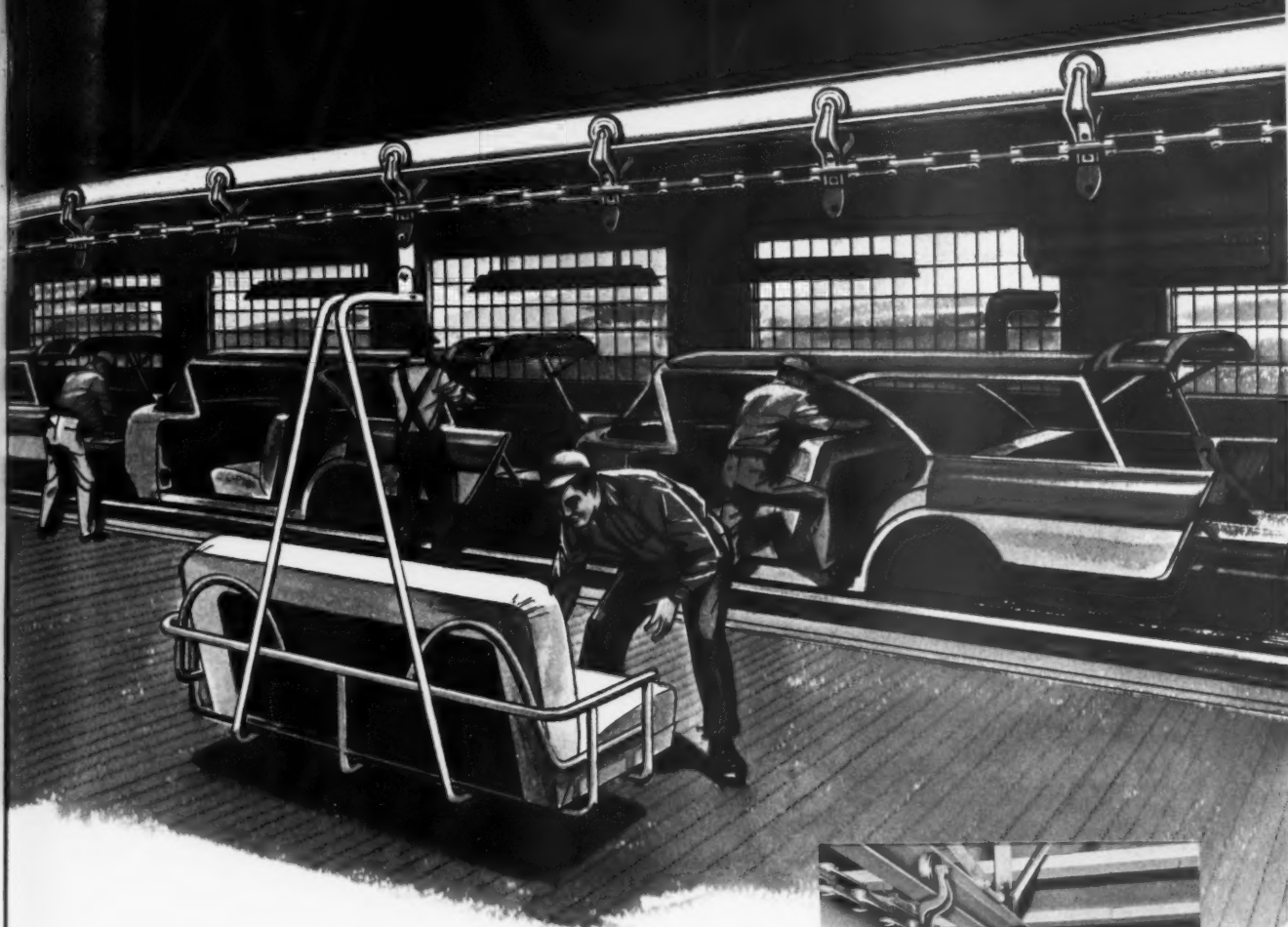
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## Conveyors Modernize Production Flow...

# DOUBLE Station Wagon Volume

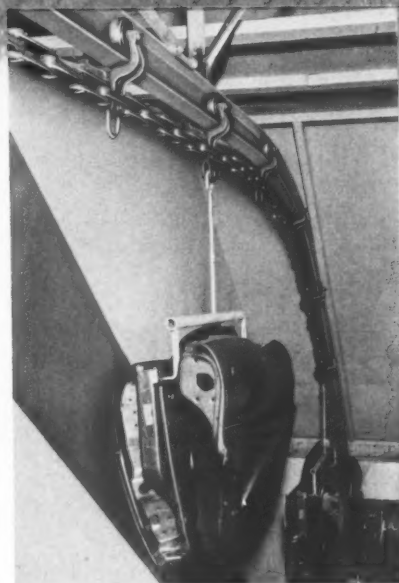
The Ionia Manufacturing Company, Division of the Mitchell-Bentley Corp., Ionia, Michigan utilized more than 4½ miles of Webb conveyors in converting their five-floor plant into a "one-floor" assembly line. They manufacture station wagon bodies for two G.M. and one Ford Division. Forty-three Webb conveyors of four different types have transposed this plant into the acme of modern manufacturing... and doubled production volume.

The Jervis B. Webb Company manufactures all types of conveyors for automatic handling of any material from hairpins to raw steel. For more information on how Webb conveyors can improve your materials handling and reduce production costs, contact any Webb District Office or write direct.

**JERVIS B. WEBB CO. of CALIFORNIA**  
Specialists in Custom Conveyor Systems  
**9301 RAYO AVENUE**  
**SOUTH GATE, CALIFORNIA**



FACTORIES: DETROIT • LOS ANGELES • ATLANTA • HAMILTON, ONTARIO, CANADA • ENGLAND • FRANCE • BELGIUM • AUSTRALIA



The large illustration above shows a location on the third floor where a Webb Floor Type Conveyor carrying station wagon bodies is joined by a Webb Trolley Conveyor handling seat assemblies and other interior parts.

The photograph above is another view of the Trolley Conveyor coming up from the second floor... this time loaded with sub-assemblies for the storage area.

*More details on reverse side*

#### OTHER WESTERN OFFICES

2144 MARKET ST., SAN FRANCISCO 14, CALIFORNIA  
4305 EMERSON ST., SEATTLE 99, WASHINGTON  
22 WEST 2ND ST. SOUTH, SALT LAKE CITY, UTAH



## Conveyors Modernize Production Flow... *DOUBLE* Station Wagon Volume

Stampings are carried to third floor from railroad receiving dock by a Webb 6" overhead trolley conveyor (1) bisecting the building. Parts go into storage (2) for controlled feeding to conveyor system. Trolley Conveyor (3) with carriers coded for scheduled parts are loaded from storage by stock handlers. In production area, small parts are removed and placed in fixtures (4) and welded into sub-assemblies. The same conveyor carries sub-assemblies to side panel assembly power and free conveyor (5) where complete side panel assemblies are welded. They are then transferred from these conveyors, placed on another trolley conveyor (6) and transported to fourth floor.

Here (7) side panel assemblies, roof tops and floor decks are positioned into body jig and gun welded. Bodies travel automatically through all phases of assembly and finishing . . . Bonderizing (8), prime (9), bake (10), wet sand (11), 1st finish coat (12), 2nd finish coat (13), polish (14) . . . On the third floor, hardware (15) and interiors are installed (16). After final inspection (17) a Webb Floor Conveyor feeds bodies to a shipping area. Here eight storage lines hold four complete truck loads ready for shipment. At this point a Webb automatic positioning body elevator loads haulaway trucks in minutes, completing the production cycle.

Ionia Manufacturing Company has good reason to be proud of their plant. With efficient conveyerizing, they have solved almost insurmountable production problems. Webb engineers, working with Ionia plant engineers, created a well organized, coordinated production flow.

### JERVIS B. WEBB CO. of CALIFORNIA



Specialists in Custom Conveyor Systems

9301 RAYO AVENUE  
SOUTH GATE, CALIFORNIA

#### OTHER WESTERN OFFICES

2166 MARKET ST., SAN FRANCISCO 14, CALIFORNIA  
4305 EMERSON ST., SEATTLE 99, WASHINGTON  
22 WEST 2ND ST. SALT LAKE CITY, UTAH

IF YOUR PROBLEM IS MODERNIZING PRODUCTION FLOW . . . CALL IN A WEBB ENGINEER



Now . . . complete stocks, prompt deliveries  
of **Aluminum** rod, bar and wire

from any of the **10** Western warehouses  
of

## Clingan & Fortier, Inc.

**Complete  
warehouse  
stocks**

...of rod, bar and wire in all sizes and shapes are only a phone call and a short delivery time away from any Western plant or shop.

**Experienced  
technical  
assistance**

You can rely on Clingan & Fortier for fast, courteous Western service... for regular shipments and emergency requirements that simplify your storage and inventory problems.

**Fast, personal  
attention**

When you phone our customer service specialists, you talk with trained and qualified men who know the application advantages of aluminum rod, bar and wire in terms of *serving your particular needs best!*

On orders of any size...every time you need aluminum, phone your nearest Clingan & Fortier warehouse **FIRST**. You'll get the *exact* aluminum rod, bar or wire you need...*when you need it!* We believe our specialized aluminum service will please you and pave the way for *more* calls.

The number of Western plants and shops that have switched to Clingan & Fortier's combination of *specialized service and dependable quality* is growing steadily. Call **TODAY!**

**ALWAYS CALL . . .**

## Clingan & Fortier, Inc.



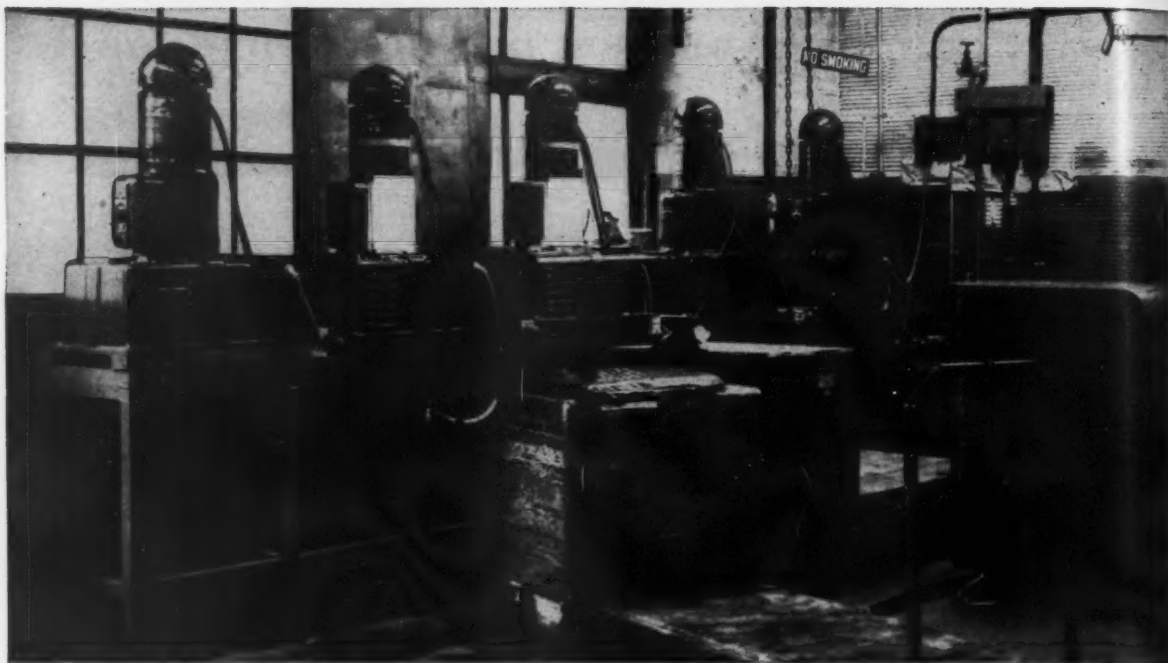
WESTERN DISTRIBUTORS FOR

# REYNOLDS ALUMINUM

LOS ANGELES 2929 Santa Fe Ave. LUelaw 3-6581	SAN FRANCISCO 3201 Third St. Mission 8-0170	N. HOLLYWOOD 13406 Satcoy St. State 6-8151	ONTARIO 5390 Mission Blvd. LYcoming 8-4711	FRESNO 1156 Parallel Ave. AMherst 8-7071	SACRAMENTO 1101 Fee Drive WABash 2-4541	SAN DIEGO 1201 J St. BEImont 4-3118	SEATTLE 3218 Airport Way MAIN 7377	SPOKANE E. 1517 Sprague Ave. KEstone 5-2411	PORTLAND 2025 N. W. Overton St. CAPital 8-8439
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... for more details, circle No. 29 on Reader Service Postcard





## Quality batteries deserve quality chargers

Lincoln "Precision-Charge" for lead acid and Edison type batteries  
**INSURES LONGEST LIFE!**



Call your Lincoln representative in  
Los Angeles,  
San Francisco (Emeryville),  
Portland, Seattle

**Complete protection!** It is impossible to damage batteries because of incorrect polarity, excessive temperature, or power failure. "Precision-Charge" has all the automatic controls specified in I.T.A. recommendations.

**Easy to Operate!** Simple controls set when charging is begun, protect batteries from overheating, control charging rate, turn charger off and disconnect battery at proper time.

**Versatile!** An infinite number of charging rates are available by a sim-

ple adjustment of the current control. All types and sizes of batteries within the range of the charger are accommodated.

**Efficient!** Stable charging rate is not affected by variations in input line voltages.

**Tested and Approved!** Battery manufacturers recommend "Precision-Charge".

**YET "PRECISION-CHARGE" COSTS LESS!**  
Lincoln's low price includes cables and controls

If you think you have to pay more for quality **COMPARE THESE PRICES AND SPECIFICATIONS**

LEAD ACID CHARGERS				NICKEL-IRON-ALKALINE CHARGERS			
Make	Amp. Hrs. Capacity	No. Cells	Price	Make	Amp. Hrs. Capacity	No. Cells	Price
LINCOLN K-1064	350-800	15-18	\$630	LINCOLN S-6088	225-450	10-30	\$415.00
Mfg. A	346-540	15	1149.00	Mfg. A	225-300	10	452.00
	541-950	16	1395.00		261-425	24 or 25	1082.00
	481-850	18	1395.00		339-600	30	1335.00
Mfg. B	346-540	15	1149.00	Mfg. B	0-308	10	452.00
	541-800	16	1395.00		261-380	24 or 25	1082.00
	481-890	18	1395.00		311-515	28 or 30	1335.00

*There are many other models made by manufacturers A & B which are required to cover the entire range of capacities that is covered by the single Lincoln model. The examples given are representative and include the lowest priced unit of each manufacturer.*

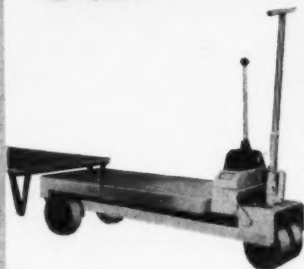
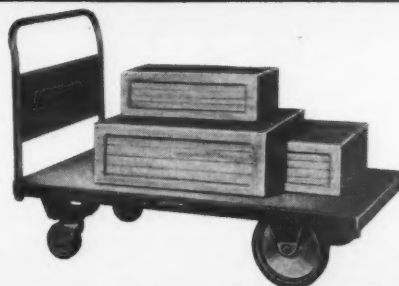
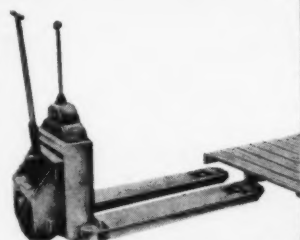
## THE LINCOLN ELECTRIC COMPANY

Dept. 1335 • Cleveland 17, Ohio

The World's Largest Manufacturer of Arc Welding Equipment

... for more details, circle No. 30 on Reader Service Postcard  
See Directory listing page 136  
**WESTERN INDUSTRY — April 1957**





## MOVE it with AMERICAN

Dependable and Economical Wheeled Materials-Handling Equipment Available from Distributor Stocks Almost Everywhere.

**TWO-WHEEL HAND TRUCKS** built with frames of steel, or lightweight magnesium appliance models, for moving packaged loads from a few pounds up to 1,500 pounds. Built for the job, every truck is guaranteed five years.

**BARREL AND DRUM CRADLES** enable one man to operate and fully control the moving and tipping of barrels, drums or carboys. The American Carboy Tilter enables safe handling of even the most corrosive or dangerous liquids.

**PLATFORM TRUCKS** with rugged pressed-steel decks to handle light, medium or heavy loads with ease; tilting and non-tilting types, trailer attachments, interchangeable wheels and rubber bumpers.

**SKID AND PALLET LIFT TRUCKS** to move loads up to 6,000 pounds. Trucks you cannot "corner"; that require only a 35 pound force to lift a three-ton load.

**PORTABLE ELEVATING TRUCKS** in the all-new Safeway line easily lift 1,500 pounds as high as 96 inches. Pedal-operated or battery-powered fork, platform or drum-stacker models.

**GRAVITY WHEEL CONVEYORS** which are the lightest all-steel conveyors made. Every 10-foot section has 103 ball-bearing wheels rigidly supported by an exclusive patented grid. One side handles small packages, the other large.

**INDUSTRIAL WHEELS** including 128 sizes of the famous Steelite rubber-tread wheels; semi-steel, semi-pneumatic and pressed-steel wheels for use on materials-handling equipment and for other industrial applications throughout industry.

American Pulley invites you to see this complete line at your distributor's showroom—invites you to compare, feature for feature, construction, design, dependability.

You'll find it will pay you to "Move it with American" Materials-Handling Equipment.

Ask your local distributor for complete information.

*The American Pulley Company*

MATERIALS-HANDLING DIVISION

4246 Wissahickon Ave., Philadelphia 29, Pa.

... for more details, circle No. 31 on Reader Service Postcard  
See Directory listing page 119

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# MICRO SWITCH . . . FIRST IN PRECISION SWITCHING



## How plant operators use MICRO SWITCH Precision Switches to speed materials handling

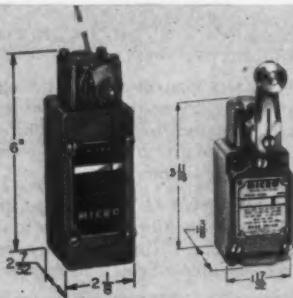
Plant engineers find MICRO SWITCH precision switches ideal for keeping production lines running smoothly.

Small in size, high in electrical capacity, versatile in application, these switches may be used everywhere—in process, bulk, flow and level controls; on package and part con-

veyors; in counting and weighing devices; as manual push-button controls; and to automatically control mechanical motion of machines and equipment.

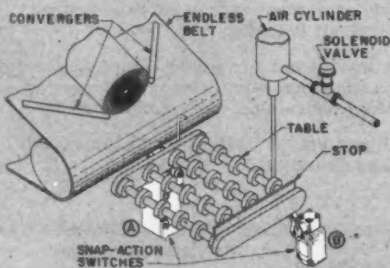
Here are two practical examples of the way these switches have been used to speed materials handling:

Automatically unload tied bundles



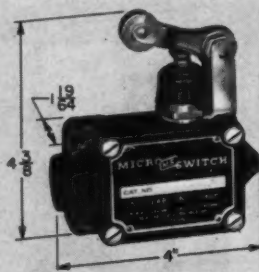
Two MICRO SWITCH precision switches, of different types, unload tied bundles from this conveyor. They also prevent bundles from piling up at the end of the conveyor.

Bundles, which come from the floor above, are centered by two convergers. Each bundle actuates Switch A (with long feeler) as it passes on to the ball bearing table. The switch operates a timing device which stops the conveyor and operates a solenoid air cylinder. This tilts the table, dropping the bundle into a hand truck below. When the table returns to normal position, it actuates small limit Switch B which starts the conveyor again.



There is a MICRO SWITCH Distributor near you with complete stocks of switches for plant use applications. Look under "Switches, Electric" in your classified telephone directory.

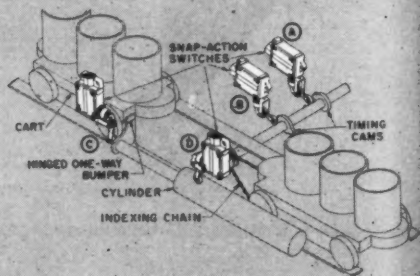
Four switches position moving carts on conveyors



On the forward stroke of a hydraulic cylinder ram the carts are moved forward by a hinged one-way bumper.

The switch circuit ties the hydraulic cycle in with the mechanical timing cycle and prevents the next loading operation until the cylinder ram has moved the preceding carts ahead on the conveyor.

Switch C closes on the forward stroke of the ram. A timing cam closes Switch A. This reverses the hydraulic ram to the back position where it closes Switch D. When Switch B is closed by the timing cam, the ram again moves out and pushes the carts forward on the conveyor.



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MICRO Tips?  
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"how others do it"  
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## MICRO SWITCH

A DIVISION OF MINNEAPOLIS-HONEYWELL REGULATOR COMPANY

16 Canada, Leaside, Toronto 17, Ontario • FREEPORT, ILLINOIS



. . . for more details, circle No. 32 on Reader Service Postcard  
WESTERN INDUSTRY — April 1957





## Picture of Five Wheelbarrows

Of course you don't see 5 wheelbarrows but you do see one man on a "PAYLOADER" tractor-shovel at Domestic Pump & Mfg. Co., Shippensburg, Pa., and the owner says it does as much work as 5 men with wheelbarrows handling small castings, scrap and other bulk materials. If you are having trouble finding men to do hard laborious material-handling work, it will pay you to find out how many of these problems a "PAYLOADER" can solve.

The model HA pictured has a payload capacity of 18 cu. ft. or 2,000 lbs. It will unload boxcars and scoop-up, carry, dump and spread at surprisingly low costs per ton. A number of quickly-mounted attachments are available to handle extra jobs — sweeper, fork lift, tine bucket, snow plow. Larger units in the complete "PAYLOADER" line (bucket capacities up to 2¼ cu. yd. or 7,500 lbs.) give proportionately greater production. Your nearby Distributor is anxious to demonstrate what a "PAYLOADER" can do for you.

### What makes an HA **PAYLOADER** best for your job?

Shortest turning radius  
Higher dumping height  
Biggest Bucket (18 cu. ft. payload)  
Hydraulic load-shock-absorber  
40° bucket tip-back at ground level  
Exclusive one-lever bucket control

#### THE FRANK G. HOUGH CO.

889 Sunnyside Ave., Libertyville, Ill.

Send data on "PAYLOADER" tractor-shovels

- ☐ Models HA (18 cu. ft.) and HAH (1 cu. yd.)  
☐ Larger models to 2¼ cu. yd.

Name

Title

Company

Street

City

State

56

See Directory listing page 132



# PAYLOADER®

MANUFACTURED BY  
**THE FRANK G. HOUGH CO. LIBERTYVILLE, ILL.**

SUBSIDIARY—INTERNATIONAL HARVESTER COMPANY



... for more details, circle No. 33 on Reader Service Postcard





## Made for Each Other

*High-speed sigma welding a 5-in. thick alloy paper mill roll. Note top quality of multipass weld beads.*

### ... SIGMA WELDING AND ALLOYED METALS

Because sigma welding joins modern alloys of varying types and thicknesses in fast, clean operations, it has gained recognition by manufacturers throughout industry as the most efficient welding process for a wide range of alloy fabricating jobs.


#### **Combines Advantages**

Sigma welding is an extremely versatile process—it joins metal alloys ranging in thickness from 0.035 inch to more than five inches (in multipass operations)—and attains up to four times faster wire deposition than other welding processes.

Gain the full advantages of modern sigma welding . . . Contact your local LINDE Representative for complete information, or write today for free literature.

#### **Linde Air Products Company**

A Division of Union Carbide and Carbon Corporation

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Division of Union Carbide Canada Limited, Toronto

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# LOW COST MARGIN OF SAFETY BETWEEN

## DANGEROUS SLIP



## SURE GRIP



Pattern actual size

Stops skids and slips *with* Raised steel figures diamond-shaped for maximum slip-skid resistance from all directions

Get maximum wear *with* Tough rolled steel floor plate

Easily fabricated *with* Ordinary shop equipment

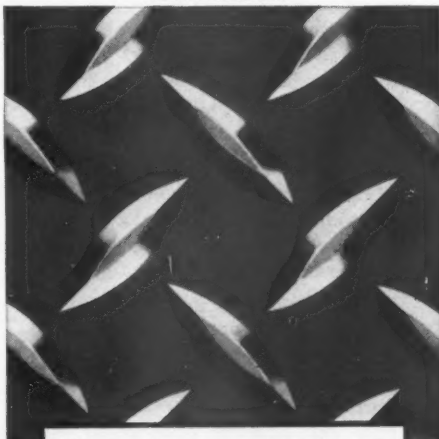
No matching problems *with* Non directional pattern—minimum waste

Cleans, drains rapidly *with* No maintenance problems

Solve your slipping problem *with* A.W. Super-Diamond as independent flooring, as an overlay—or used structurally.

For complete information write on company letterhead to Dept. SD-S14.

*No other floor plate can match A.W. Super-Diamond's safety and durability at so low a cost.*



Wherever oil, grease, or other substances raise special slipping accident hazards, we suggest a check on the special non-slip qualities of A.W. ALGRIP—the world's only abrasive rolled steel safety floor plate.



# SUPER-DIAMOND

## ROLLED STEEL FLOOR PLATE

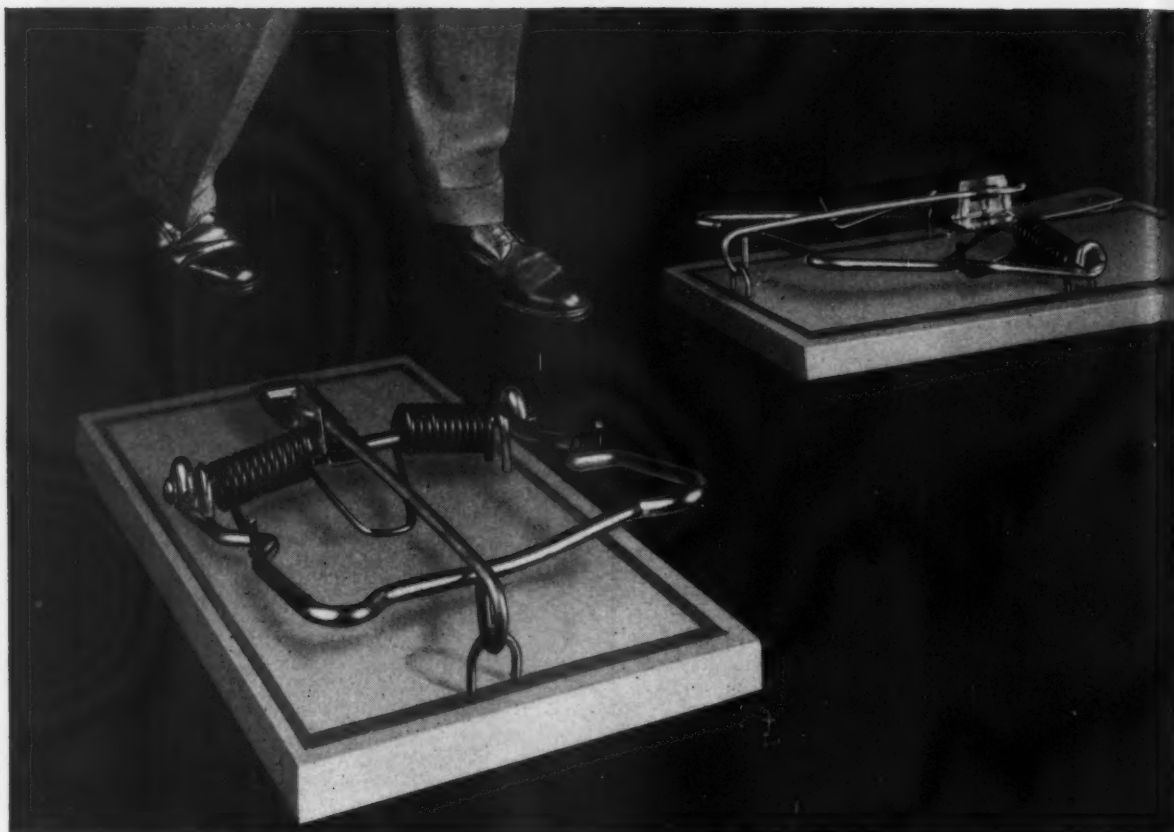
ALAN WOOD STEEL COMPANY • CONSHOHOCKEN, PA.

Other Products: A.W. ALGRIP Abrasive Rolled Steel Floor Plate—Plates—Hot and Cold Rolled Sheet and Strip—(Alloy and Special Grades)

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April 1957 — WESTERN INDUSTRY





## Two traps to avoid in today's sheet steel market

A sudden switch from feast to famine in the supply of sheet steel is a good possibility. So says Iron Age Magazine and other authorities who point to the likelihood of stepped-up demands from auto makers this spring as one reason for expecting a change.

This possibility creates two buying traps for all sheet and strip users!

*One trap is "hand-to-mouth buying."* It looks safe today—but it's a dangerous way of life, because you might be pressed to meet production demands if supply should tighten overnight.

*The second trap—"loading up now at current prices—while quantity buying is easy."* The hitch here, of course, is that what looks like a bargain may prove costly. You tie up needed capital—incur extra costs for storage, handling, insurance, taxes and possible damage or obsolescence. All

this must be added to the cost of the steel—as much as 16.5%, or more, according to sharp-pencil purchasing experience.

How can you steer clear of these traps? Here's what many buyers who have learned the hard way advise:

1. Establish a steady buying pattern with a source such as Ryerson—whose stocks and resources afford maximum protection during times of short steel supply.
2. Estimate your requirements for a few months ahead. Then ask Ryerson to work out a schedule of steel shipments to be delivered as you need them.

So right now is the time to talk to your Ryerson sheet and strip specialist. He will be glad to review your requirements with you and work out a plan tailored to your needs.

## RYERSON STEEL

*In stock: Carbon, alloy and stainless steel—bars, structurals, plates, sheets, tubing, industrial plastics, machinery & tools, etc.*

JOSEPH T. RYERSON & SON, INC., LOS ANGELES—Plant: 4310 E. Bandini Blvd. Mail: Box 3817. Los Angeles 54. Phones: ANgelus 2-6141, from San Diego (no toll) Zenith 6660. SAN FRANCISCO—Plant: 65th & Hollis Sts., Emeryville. Mail: Box 188. Emeryville, California. Phones: OLYmpic 3-2933, Douglas 2-4211. SEATTLE—Plant: 1200 4th Ave., South. Mail: Box 3525, Seattle 24. Phone: Seneca 2300. SPOKANE—Plant: North 207 Freya St. Mail: Box 2158, Spokane 10. Phone: Keystone 5-1581.

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WESTERN INDUSTRY — April 1957



## The M-H pacemakers are today's profit-takers

**T**HE MONEY BEING SPENT by industry for material handling equipment is increasing at a fast clip. Significantly, the rate of increase is far above that for the overall investment in other types of plant equipment.

What are the reasons? . . . and what does it all mean to you?

The reasons are simple. *Material handling today offers the greatest immediate opportunities for reducing the cost and increasing the productivity of manufacturing operations. And automation of single or multiple processes is requiring more and better handling systems to move materials within and between processes.*

Right now, there is no doubt that better material handling is your primary route to beating the problem of today's cost-profit squeeze—by reducing your indirect labor and inventory requirements, utilizing your plant space more effectively and profitably, smoothing and speeding the flow of your work processes, and improving safety and worker morale.

Proof? Invariably, we observe that the pacemaker plants in the fields of production speed-up and cost reduction are *also* the pacemakers in the development and utilization of advanced material handling systems.

To insure the continuing success of your enterprise, you have the responsibility of seeing that your plant is among the pacemakers. We in turn have the responsibility of keeping you well informed so that you continually know where you stand in relation to the rapid-fire improvements being made in handling systems, and can make sound decisions leading to improvement in your methods.

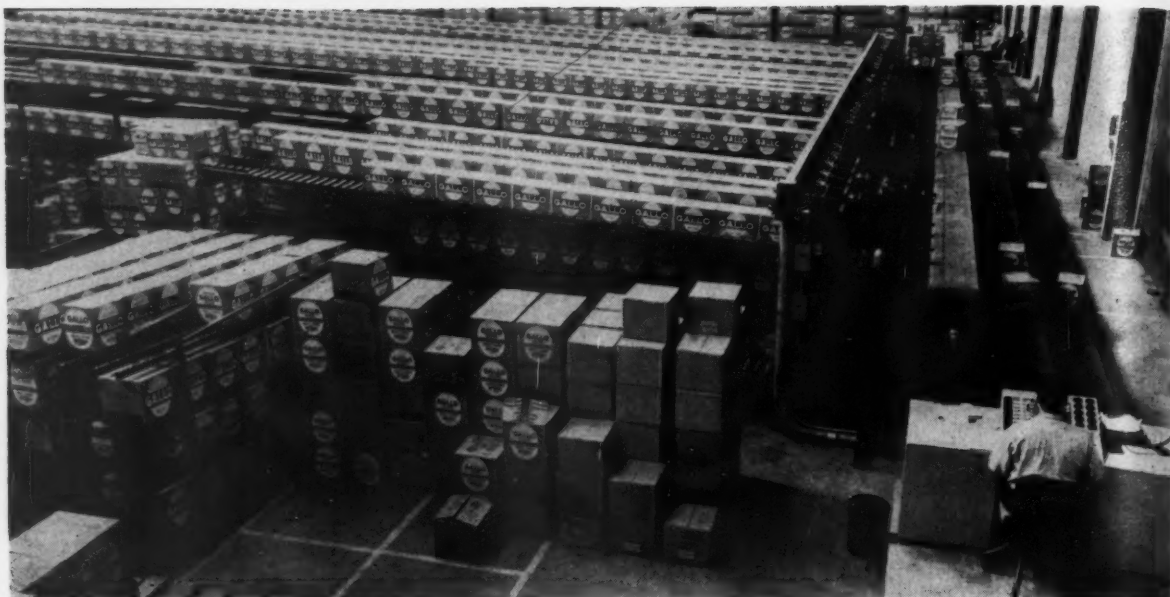
To accomplish both of these goals most effectively is the purpose of the unusual issue you now hold. For three months, WESTERN INDUSTRY editors have been ferreting out the best material handling and industrial packaging ideas of the year in the West, as represented by actual installations in new or modernized Western plants. To locate these pacemaker systems, we have talked with dozens of material handling engineers and consultants throughout the West.

Based upon their nominations and field investigation by WESTERN INDUSTRY editors and correspondents, we have winnowed down to a baker's dozen of the most noteworthy. Here they are, on pp. 46-103, all under one roof in our "Western Material Handling Pacemaker Plant—1957."

Whether your plant is large or small, we are certain that your tour through the M-H Pacemaker Plant will reward you with a pocketful of ideas that you can use in planning better handling systems to fit your special production needs.

As a bonus to facilitate your planning, don't overlook the 42-page *Western Material Handling & Packaging Buyers' Directory*, complete on pp. 117-158 of this issue. As the *only* directory published that lists Western offices and Western distributors for all major manufacturers of handling equipment, it can save you considerable time and effort in your steps toward placing your plant among the Material Handling Pacemakers.





**ONE COMPLETE ORDER** is filed into computer console (right), then a push of another button and cases start rolling from gravity conveyors (left) onto three powered conveyors (center). Meanwhile, the operator files another order.

## Here's the automatic warehouse

★ **M-H PACEMAKER** because its electronic computer console, conveyORIZED delivery of goods and vast speed-up of order filling make it a thriving denial of "it hasn't been done yet" publicity.

**A**LACK OF AUTOMATICITY in warehouses was recently made the point of nation-wide publicity. Here's a Western Pacemaker warehousing installation that puts anybody's picture of the sadly neglected warehouse to shame.

Look-ahead thinking, coupled with sharp supplier engineering, has resulted in an entirely automatic warehouse for Gallo Wine Sales Co., in South San Francisco, exclusive Bay area distributors of California's largest selling wine. Four men operate the system—filling orders at a rate of 1,500 cases per hour each afternoon.

The brain of the system is a computer console. The arms and legs consist of 64 gravity roller conveyors, three belt conveyors and a chain-driven live roller conveyor. Here's how it works.

One commodity is stored in cased form on each of the 64 gravity roller conveyor lines. These conveyors are arranged in a three-deck fashion at right angles to three belt conveyors also triple-decked. At the lower end of each roller conveyor is an escape-

ment that, when actuated, permits one case at a time to flow onto a belt conveyor.

The three belt conveyors converge vertically and discharge onto a wide live roller conveyor, which converges the flow horizontally so that the final result is a single conveyor line leading to the route trucks.

The entire system involves about 5,000 ft. of Matthews Conveyor Co. conveyors and stores about 4,000 cases of various wine commodities. The storage gravity roller conveyors are loaded at the upper end by a crew of four men each morning. These men also unload trucks and perform other duties in the warehouse. Cases are taken from pallet loads and put in the proper storage conveyor.

### Then to the receiving end

Later the same day, the four-man crew makes up orders. One of them operates the brains of the system—the computer control console. Two other men stack fully filled orders on pallets ready for the route trucks.

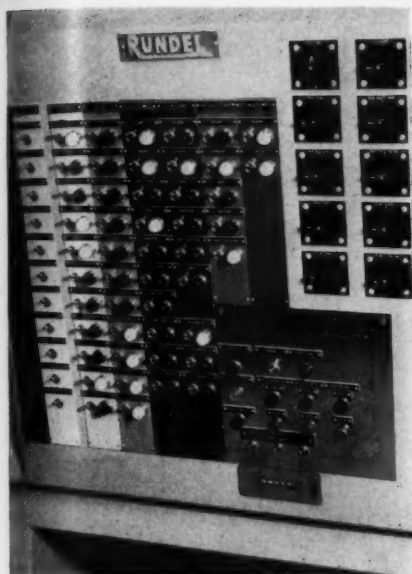
The operating control console, especially developed by Rundel Electric

Co., consists of eleven "quality selector" switches and 48 "commodity selector" switches and pilot lights. The "quantity selector" switches run in consecutive order from 1 to 9 inclusive; there are also "quantity selector" switches marked 10 to 20. This set-up permits presenting of quantities up to 29 into the computer.

The 48 "commodity selector" switches each have a light opposite them, the color of which indicates the conveyor level from which the Gallo cases are being released. There are also ten "selector switches" covering the most popular commodities which permit transferring to additional storage lines.

The operator, with the order in front of him, first selects the quantity and presets it into the control by pressing the appropriate "quantity selector" switch. Then he transfers this count to the appropriate "commodity selector" switch. For example, the first item might be four cases of Gallo Port fifths, and the second item nine cases of Gallo Muscatel tenths. The operator starts by pressing the "number 4" quantity selector switch





**BRAINS OF THE SYSTEM** are contained in a computer with switches to obtain combinations of quantity and product.

and the "Port fifths" commodity switch. Next he presses the "number 9" quantity selector switch and then the "Muscatel tenths" commodity switch. This procedure would continue until the entire order had been preset into the computer control.

At this point the operator presses the "order complete" button on the lower right hand portion of the control panel. If the conveyor is running, the control will immediately start operating the escapement devices which in turn release the Gallo cases. If the belt conveyor is not running, it is only necessary to start it via the push-button in the lower right hand switch group. This automatically starts releasing Gallo cases if the "order complete" button has been pressed. All quantities of Gallo cases which have been preset into the panel will continue to be released onto the lateral conveyor until the order has been completed.

Regardless of the manner in which the commodities are set into the panel, they will be rearranged and released with the items closest to the exit end of the conveyor being released first and progressing sequentially towards the rear end of the conveyor line. This feature obviously increases the speed of operation since it permits progressive release of the items onto the lateral conveyor without any delay of waiting for the lateral conveyor to clear.

As soon as the last item of one order has been cleared onto the lateral conveyor, the operator may start presetting the next order. But he may not

start releasing these cases until the "system clear" light—which is also located in the lower right hand switch group—goes on. Or, if a visual check indicates that the lateral conveyors are clear, he may speed up operation by pressing the "bypass" button.

#### **Built-in stop gap**

If a stock conveyor line becomes empty before it has counted out the preset quantity, a red light marked "empty line" comes on. This light is located in the lower right hand switch group also. The operator looks over his "commodity selector" pilot light group to find out which line has emptied. This is indicated by the light remaining on for that commodity. If this empty line contains popular items on which there are additional storage lines, it is only necessary to turn the

appropriate selector switch in the upper right hand corner to the second storage line. At this point the case count is transferred to the new storage line and the remaining cases that were short are counted out.

If a light indicates an empty line and the operator determines from the commodity pilot light that he does not have an additional storage line, it is necessary for him to obtain the case shortage by pressing the appropriate selector switch in the lower right hand group until the "empty line" light goes out. At this point the operator can read on the counter the number of cases of that particular commodity that are short and mark his order accordingly.

Selector switches have been set up with different colored backgrounds to

... concluded on page 103



**MESSAGE IS RELAYED** from controls to special escapements on each gravity conveyor line designed to permit the correct number of cases to flow onto lateral conveyors.



**CONVERGING FROM THREE LEVELS**, the entire order flows smoothly onto a common shipping line via a special converging device.





**INTER-MACHINE HANDLING** of parts along production line required copious use of belt and roller conveyors. Here, copper tubes, just uncrated, are sawed to production lengths, then will move to next machine by belt conveyor.



**IN-PROCESS PARTS STORAGE** segregates finished components at points along assembly line where they will be installed. Floor racks like this are used now, but mezzanine storage space is being developed as another space-saver.

## M-H face-lifts a "job shop"

★ **M-H PACEMAKER**, in 2-year all-out modernization program, achieves more efficiency and reduced costs by smooth production of short run items, with M-H techniques triggering the transformation.

**W**ANT A 60% REDUCTION in material handling costs, smoother and more efficient production line operation, more efficient use of shop floor space, and a sharp reduction of in-plant accidents?

Those are the words Harold J. Hunt, General Manager of Drayer-Hanson, a division of National-U. S. Radiator Corp., Los Angeles, uses in summing up the results of a two-year program aimed at increasing overall efficiency of his plant. For one of the largest producers of air conditioning equipment west of the Mississippi River, this was not a simple accomplishment.

### Short run complications

"Our biggest problem was to change a number of in-plant job shop-like activities into some semblance of a production line operation," says Fred Savaglio, plant supervisor. "This was complicated by the fact that many of our products are custom made and

require very short runs of similar parts. But when we set our minds to making improvements, it became apparent that revised material handling techniques could trigger the entire program."

Prior to the improvement program, material handling at Drayer-Hanson was pretty much of a "brute force" operation. Incoming raw stock, aggregating an average inventory of 600 tons of sheet steel and 30,000 lb. of copper tubing, was unloaded and stored outside the plant. Three employees, utilizing jeeps and lift trucks, were kept continuously busy transporting this raw stock into the plant and to the area where it was needed. In-process parts were placed in boxes, then the boxes had to be transported to the area of the next operation. It was impossible to schedule an operation like this. Assembly line shortages might occur while in another area the needed parts were piling up in an in-process accumulation.

It was apparent from the first that revised material handling techniques would require a simultaneous revision of plant production facilities. So the production machines were shuffled about in a manner to produce insofar as possible a definite production line for each component or group of components that went into the assembly of an air conditioning unit. These production lines in turn, along with the various assembly lines, were each located in a single building bay so that an overhead traveling crane could serve its entire length.

### Roller conveyors between processes

Whenever possible, roller conveyors were installed so that in-process parts leaving one machine or operation would move automatically to the next. These roller conveyors practically eliminated the old box system of handling in-process parts, and went a long way toward minimizing line shortages caused by not having the



right part in the right place at the right time.

A second material handling innovation within each production department was the erection of tiered racks or bays for storing parts that could not be moved onward immediately. These racks are coded and numbered to facilitate immediate location of the wanted part, and because they are tiered one above the other, result in considerable floor space saving over the older box method of handling parts.

#### Revisions in raw stock handling

With definite production lines set up and a material flow pattern established, handling of incoming raw stock was revised accordingly. Instead of unloading outside for a second handling into the plant, the raw stock is now delivered directly from the incoming carrier to the head of the production line on which it will be used. Thus, sheet metal is stored near the beginning of the sheet metal line, roll fin stock at the head of the tube sheet and fin department, and copper coil stock directly on the copper coil production line. In fact, because of its susceptibility to injury, the incoming copper coil stock is not even unboxed until it is placed on the table of the machine which will saw it to proper production lengths.

In conjunction with the direct handling of raw material, new tooling was developed to eliminate 50% of the previous waste of rolled fin stock used in coil production. This reduced not only handling, but released floor area for more productive use.

#### Finished pieces wait in storage

When finished components roll from the various production departments, they are not delivered en masse to the assembly lines. Instead they are segregated according to their assembly sequence, then delivered to points along the assembly line where they will be installed. As yet, many of these components are stored in floor racks to await assembly, but mezzanine storage space is being planned (some is already installed) to further conserve floor space. Roller conveyors will transport these components directly from the mezzanine storage to the area on the floor where assembly takes place.

While laying out the new production and assembly lines, every effort was made to incorporate all operations where they were needed to minimize in-plant transportation.



**MAJOR HANDLING WORK** in final assembly area is done by this overhead, twin-track traveling crane. In new production line areas, jib cranes are utilized to move parts temporarily from production line, then return them as necessary.

Conveyor belts attached directly to the high-production fin presses were installed to permit combined production of fin widths simultaneously. This reduced handling and cut production time considerably. Quality control measures in the form of frequent inspections and tests "follow through" on the assembly line, being performed when they are needed and before subsequent assembly takes place. Thus, when the product leaves the assembly line it moves straight onward into the crating and packaging area where it is prepared for shipment.

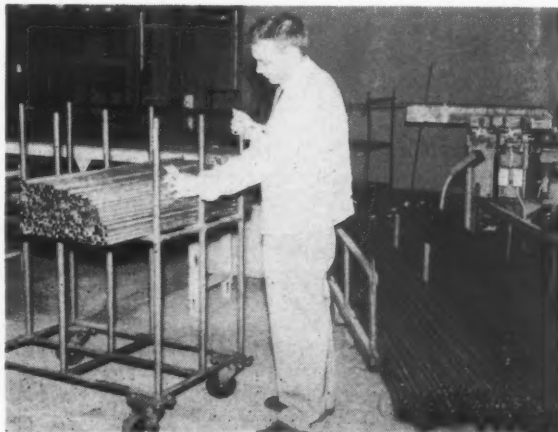
In some cases, such as with cleaning tanks and paint booths, a single installation is made to serve two products. . . . concluded on page 103



**PALLETS** handled by lift trucks have replaced the old box method for handling.

#### SPECIAL CARTS

were designed and built to convey copper tubing from station to station. Reason: the tubing, used for coil making is highly susceptible to damage.







TRAVELING ON ORDER FILLER'S CART OR LIFT TRUCK orders move fast out of this massive distribution center.

## Towing beats 25,000 headaches

★ **M-H PACEMAKER** for fast processing of orders involving 25,000 big-to-small items. Keys to speed are smart layout and special order fillers' carts pulled by two separate in-floor tow systems.

**R**ECEIVING, stocking and filling orders for approximately 25,000 different items can be a large and costly job. Due to problems peculiar to the area, particularly the problem of distances as encountered in Southern California, a distribution center such as the Los Angeles Div. of the Zellerbach Paper Co. must pare costs to the bone to show a profit. Another phase of the Zellerbach problem is the tremendous range of sizes in products handled. Everything from rubber bands to huge rolls of newsprint passes through this 425,000-sq. ft. plant, the largest paper distribution center in the world. How they do it, in view of the difficulties and economics involved, is a tribute to P. K. Holland, vice president and general manager of Zellerbach's Southern Region, and to Graham Whitehurst, Los Angeles operations manager, who jointly conceived the plan and who make it work.

The Los Angeles plant is divided into three major departments—commercial stationery, wrapping paper, and printing papers. Prime moving equipment in the plant consists of 18 fork lift trucks and two Towveyor sys-

tems. Merchandise is received by rail car or truck over a 20-ft. wide by 920-ft. long receiving dock. Doors into the warehouse are 10 ft. wide and 14 ft. high, to handle double loads.

Lift trucks, 4,000-lb. capacity units, are used to unload incoming cars and trucks. The materials for each of the three major departments are received through doors immediately adjacent to that area. All goods are taken directly to storage. Special steel racks designed by Zellerbach permit full utilization of 22 ft. of vertical storage space.

### 3,000-ft. in-floor conveyor

As can be seen in the accompanying drawing, the printing paper and wrapping paper departments are served by a 3,000-ft. Towveyor. This in-floor conveyor will handle a maximum of 191 order filling trucks. Trucks used are heavy duty 30 x 60-in. platform units with pins for chain line use.

Each of the three departments in this plant receives sales order documents via continuous belt conveyors traveling from the office. The con-

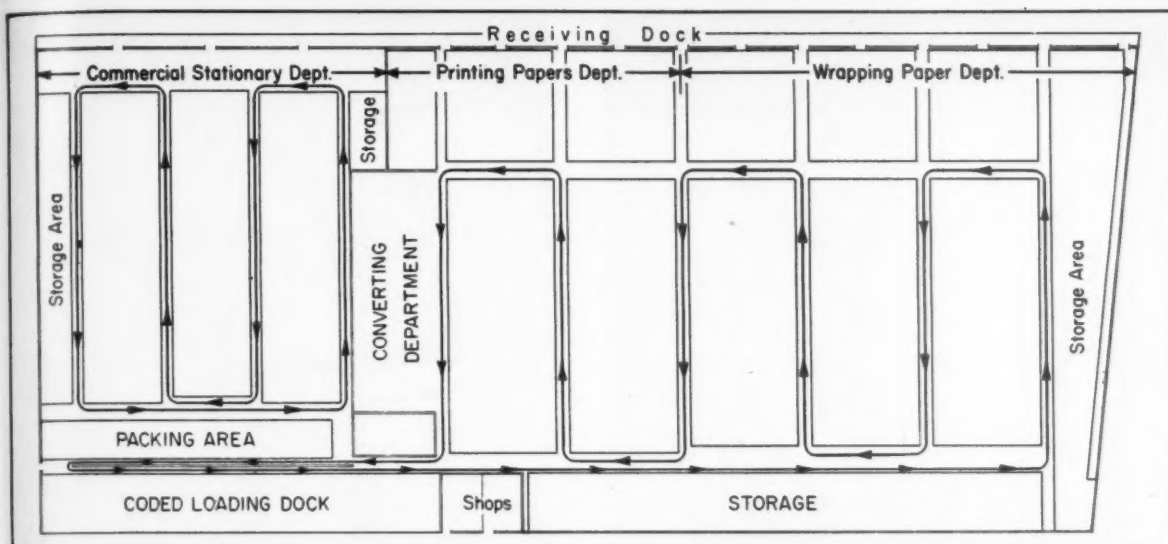
veyors deliver orders to appropriate dispatch stations. A dispatcher assigns orders to order fillers on the basis of approximately one hour's work at a time.

Upon receiving his assignment, the order filler in the printing paper or wrapping paper department removes an empty cart from the Towveyor and, pushing it manually, walks through the stock area filling the orders. As each order is filled, he puts the accompanying paper work with it, and fills the next. When the first cart is fully loaded, he hooks it back on the Towveyor, removes another empty, and repeats the procedure.

Loaded carts travel on the course shown in the drawing. They are removed from the Towveyor by one of a number of dock men on the shipping dock, and the orders are checked to insure that no items have been missed. The dock area is coded and orders are placed in the area reserved for the particular delivery route.

Dock men mark the exact coded location of the order on the sales document, and return all copies to the office via another belt conveyor. The





**ORDERS FROM EACH OF THREE DEPARTMENTS** travel to delivery trucks via two in-floor tow systems (see arrows).

dispatcher in the office separates orders by route number, and drivers sort them for truck loading sequence. Trucks are normally loaded in the morning for their daily delivery runs.

#### Lift trucks handle tonnage

In the printing paper and wrapping paper departments, orders that are too heavy for the order filler's cart are filled by lift truck and taken to a separate dock area if the order is to go out as tonnage. However, if a large quantity of any item is to be converted to smaller quantities, lift truck drivers take the item to the converting department.

In the commercial stationery department, a second Towveyor is used in conjunction with the main Towveyor serving the other two departments. Traveling between storage

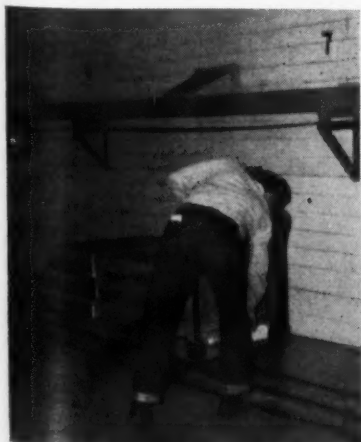
racks and bins in this area is a 1,000-ft. installation that will handle up to 62 order fillers' trucks.

Order fillers' trucks in this department are all-aluminum 24 x 47-in. double deck platform units. The order filling system here is the same. When the carts are fully loaded, they are placed on the short Towveyor and delivered to a checking station. After checkers remove the load and insure its accuracy, it is spotted in a storage area opposite a group of packers.

Merchandise is removed from the carts by packers, who prepare it for delivery. The packed order is put on another cart, and when that cart is fully loaded, it is put on the main Towveyor that serves the other two departments. Next, it travels to the shipping dock where one of several dock men removes it and spots it for truck pickup.



**SPECIAL TWO-TIER CARTS** are used in the stationery department and a separate system serves this area.



**AT THE LOADING DOCK** trucks are removed and spotted. Conveyor against wall returns paperwork.



**WHEN ORDERS ARE COMPLETED**, warehousemen put the loaded carts back on the in-floor tow system. They are towed to the loading dock where they are removed and spotted in coded locations for delivery truck pick-up.





**JIGS FOR CONTAINER ASSEMBLY** ride on a circular filling table. Operator positions all container parts, closes jig doors and the table rotates to the filling spout.



**STEEL STRAPS ARE CINCHED UP.** One-ton container is comprised of corrugated cardboard tube, top and bottom with wooden bracing and steel strapping.

## Bulk moves faster by the ton

★ **M-H PACEMAKER** for bulk material handling package design, this system has called a halt on handling 100-lb sacks for many Western plants—they get it in one-ton containers now.

**H**ANDLING BULK MATERIALS in larger containers is a practice that can save a plant a good sum of money every day, but it isn't always an easy matter to arrange. Although suppliers of bulk materials have played a major role in the trend toward larger containers, it requires new facilities—or modified facilities—on both ends of the supply line.

Smart container design coupled with compilation and close consideration of the economic factors involved have enabled Fisher Flouring Mills in Seattle, Wash., to take a giant stride in the supply of flour to bakeries that steps up the pace of progress in the West's larger-bulk-containers activity. Flour that was being shipped to Western bakeries in 100-lb. sacks is now leaving the Fisher plant—and several other Western mills—in one-ton corrugated fiberboard containers. Trade named the Bulk-Pak, this system simplifies the transporting, raising, lowering, filling and emptying of tremendous quantities of flour.

To the user of flour—and this principle promises value for suppliers and users of other bulk materials—Bulk-

Pak has demonstrated a high cost reducing value. It also permits bakeries to further increase the factor of automaticity in their plants.

### Flexibility, and cost savings

There are sixteen bakeries in the West equipped to handle Bulk-Pak Bins. Cost of flour handling has been reduced by as much as twenty cents per hundredweight. While other bulk flour handling systems have also been recently developed, this system has proven that, for an investment averaging less than 10% of other modern handling systems, savings in flour handling costs ranging from 75% to 100% of the amounts available through the use of other systems can be achieved. In addition to the economy of installation and operation, the Bulk-Pak system allows the baker to carry an inventory of flour adequate to protect him from delivery or supply interruptions, to age his flour if he desires, and to select his flour supplier from a nearby or distant point.

To Pacemaker Harold Herzog at Fisher Flouring Mills and to engi-

neers at Container Corporation of America, the development of this one-ton container meant a mountain of calculations and problems.

It was clear that size of the container was the key to the problem. What should its dimensions be? Of what materials should it be constructed? It was felt that the container should be as large as possible, and yet of a size and weight which would fit the limits of available handling and transport equipment. It was decided that the container should hold one ton of flour. This meant that pallet jacks and fork lifts, already a part of the sacked flour handling pattern, could handle the new unit without being overloaded. It also meant that existing floors would withstand loads presented.

The container had to be of such a dimension that it would fit efficiently into trucks and rail boxcars normally used as flour carriers. If possible, the container had to be a knock-down unit, capable of being reduced substantially in size when empty in order to hold down cost of returning empties. Further, the bins had to be as



light as possible so that the freight costs would be at a minimum both outbound and on return.

In addition to the pure mechanics of the problem there were some very tangible intangibles involved in considering the best method to handle and store this product. One of these concerned the need for aging the flour. Opinions differ on what happens to flour during the several weeks after it is milled. However, there are many millers and bakers who feel that the baking quality of flour is definitely improved by letting it rest or mature for a period of two to four weeks after it is milled. This meant that the container had to be inexpensive enough to permit users to tie it up in storage for long periods of time economically.

#### Sanitation factor important

Another consideration was sanitation. It had to look neat as well as provide adequate protection for the food product which it contained. It had to be rugged enough to withstand repeated rail and machine handling. Here are the particulars of the container that was designed to meet these requirements:

**Dimensions**—The Bulk-Pak Bin is 35 in. square by 64 in. high. This allows bins to fit snugly three wide in a standard boxcar. It fits two wide in a truck. It is low enough that it enters both of these carriers while being carried by a fork lift with room to spare.

**Weight of Product**—The one-ton Bulk-Pac permits loading a boxcar to an efficient and economical weight. It allows maximum utilization of legal truck capacities. It does not overload existing floors or handling equipment designed for mechanized sack handling.

**Weight of Bin**—To reduce the

freight cost on the bin both out and back, and to make them easy to handle, the bin was designed to weigh only 85 lb. This was done by using a strong corrugated fiberboard tube supported by a wooden pallet, a removable fiberboard top and bottom, four upright wooden ribs, wooden separators on top and steel strapping to bind the assembled and filled bin together.

**Cost of Container**—The container with all of its component parts costs \$13.00. However, unless the baker retains one of these for his own use, he never has to pay this cost since he is immediately credited with the bins as they are returned. The entire cost to the bin user is contained in a ten-cent-per-hundredweight usage charge. This covers the cost of the tape used to seal the bin, the steel strapping, depreciation on the bin and freight cost on the return of empties.

**Ruggedness**—The Bulk-Pak Bin has proved to be well adapted to machine handling and can stand real abuse. Over 2,000 consecutive rail shipments have been made with no damage claims.

**Sanitation Factor**—The bin is sealed by wide rubber bands or by a flexible gummed tape and is virtually dust free. The seals effectively prevent any contamination from outside.

Next step in the project was design of an efficient method for filling the bins. Through the cooperative efforts of engineers at Fisher Flouring Mills and Richardson Material Handling Co., a Bulk-Pak Bin packer was designed and installed at the Fisher plant in Seattle. It consists of an overhead bin and scale which pre-weighs 2,000 lb. of flour and feeds it into the packer unit at a density of about 48 lb. per cu. ft.

The packer unit sits directly under

the square filling spout and consists of a turntable 12 ft. in diameter with four jigs built into its perimeter. These jigs are opened to insert the bin parts and are then closed and rotated to a point directly under the square filling spout. The jig with the bin inside is then elevated with the square spout inside and the bin is filled as it drops slowly back onto the turntable. A 12-in. auger rotating at 90 rpm. powers the flour into the bin. The filled bin is then rotated another quarter of a turn where the bin cap is put on and the steel strapping is positioned, tensioned and sealed. After one more quarter turn the jig doors are opened and the bin rolls down a conveyor to the point where the bin is double checked, sealed, labeled and then released to a fork lift operator. The fork lift then takes the bin directly to a waiting boxcar or to storage.

#### And on the receiving end . . .

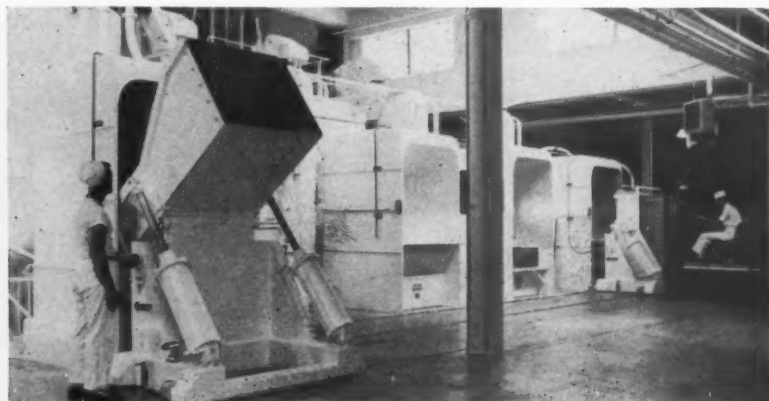
A good example of facilities that have been set up at bakeries to receive the one-ton containers of flour and get the ingredient into their operation is at Helms Bakery, Montebello, Calif., one of the Western bakeries receiving flour in this manner. The containers are unloaded from trucks or rail cars by fork lift truck and taken to on-the-floor storage.

As needed, the containers are taken to one of two pneumatic dumpers, designed to handle automatically the one-ton capacity. Called FSP Pak-Dumpers, the units are manufactured by Ferry Steel Products Co., of San Francisco. Fork lift trucks place the Bulk-Pak Bin, after its strapping, top and bands have been removed, in the dumper. A touch of an air valve and 21 cu. ft. of air actuates two large air cylinders which elevate the bin

. . . concluded on page 103



**JUST-THE-RIGHT-SIZE** containers go into rail cars easily.



**AT PLANTS**, such as this bakery, containers are delivered by lift truck to automatic dumpers that deposit entire ton into the system.





**EXPANDED EVERY YEAR SINCE 1947**, Pittsburgh-Des Moines plant at Santa Clara, Calif., has an "expandable" system that has eliminated handling problems. You can spot outside M-H plan above; inside you'll find . . .

## Jib, gantry, bridge crane team-up

★ **M-H PACEMAKER** for a coordinated, easily enlargable system featuring 47 jib cranes and a variety of special gantries and bridge cranes handling 38,000,000 lb. of large-sized steel items per year.

**F**OR THE HERCULEAN JOB of moving steel at the annual rate of 38,000,000 lb. the Santa Clara, Calif., plant of Pittsburgh-Des Moines Steel Co. has developed a truly pace-maker material handling system.

As described by Ralph Fassett, plant engineer, the elaborate network of gantries, jib and bridge cranes has enabled the plant to expand every

year since it was built in 1947 without experiencing any major handling problems.

And problems—big ones—are inherent in an operation where steel plates up to 50 ft. long and 1½ in. thick must be shuffled around like playing cards. The mere size of the plant represents a material handling hurdle. Totaling some 175,000 sq. ft.,

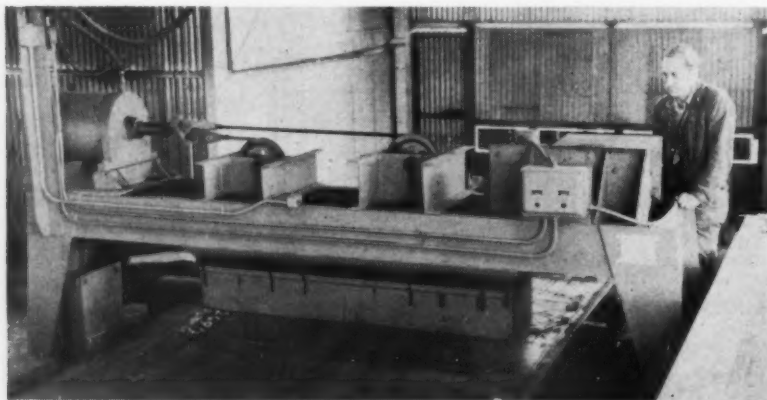
the steel structure is laid out in T-shape. The crossarm of the T, the preparation shop and warehouse, is 756 ft. long and 116 ft. wide, divided into twenty-one 36-ft. bays. Alongside it, off a rail spur, an open-air storage yard spans 720 ft.

The leg of the T is comprised of shop Nos. 2 and 3, laid out parallel to one another and each measuring 400 x 110 ft. Shop No. 2 is for plate fabrication and No. 3 is for structural fabrication. Grit-blasting, painting and warehousing of construction equipment are all done outside the main building, yet they are vital links in the handling chain.

### Big investment in M-H

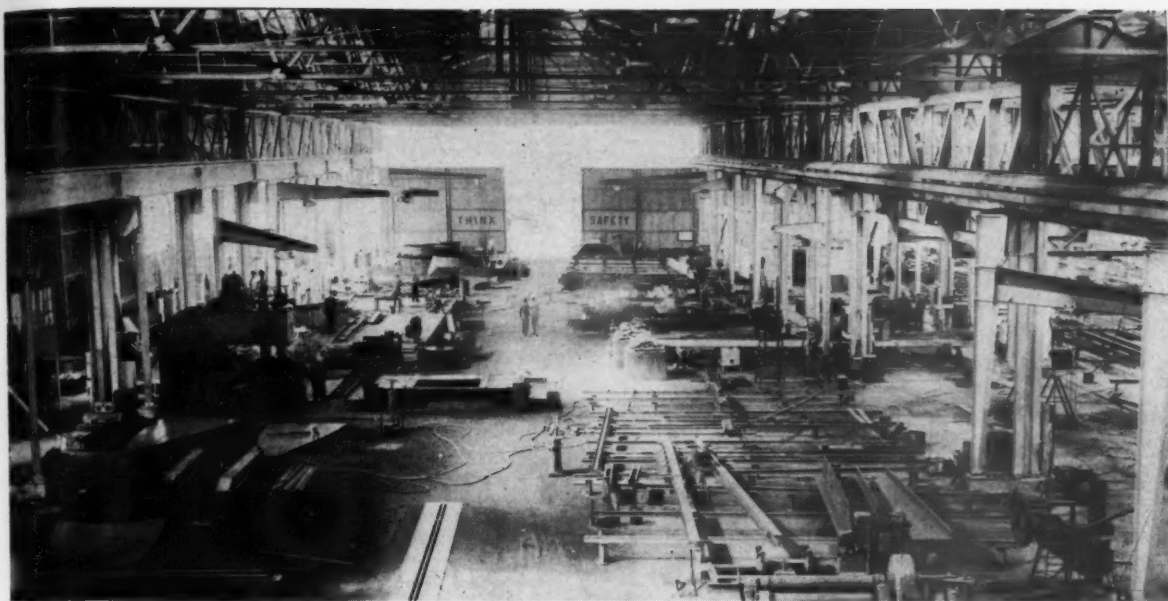
Some idea of the degree of plant mechanization may be gleaned from the fact that more than \$16,000 per production employee is invested in equipment. A substantial share of this figure is represented in intra-handling devices.

Probably the outstanding feature of the system is the large number of jib cranes used throughout the shops as an auxiliary to cab- and floor-



**5-TON SHOPMADE ELECTROMAGNET** receives plate in Shop No. 1 through slot in wall. Safety is bonus feature; less steel swings over workmen.





**BUSY JIBS** are overpassed by 100-ton bridge crane (from which photo was made) in plate fabricating shop (No. 2). Bridge crane travels 440 ft. in the shop and another 280 ft. in painting-shipping yard.

operated cranes. There are 47 jib cranes, each mounted on a 24-in. wide flange beam main building column.

Jibs pivot 220 deg. over a 27-ft. radius, and booms are mounted 20 ft. off the shop floor. The vertical member rides in a tapered roller bearing and the top in a bronze bushing. Each is equipped with a Robbins & Myers two-ton floor-operated hoist. Every machine and major operation—including punches, rolls and shears—is

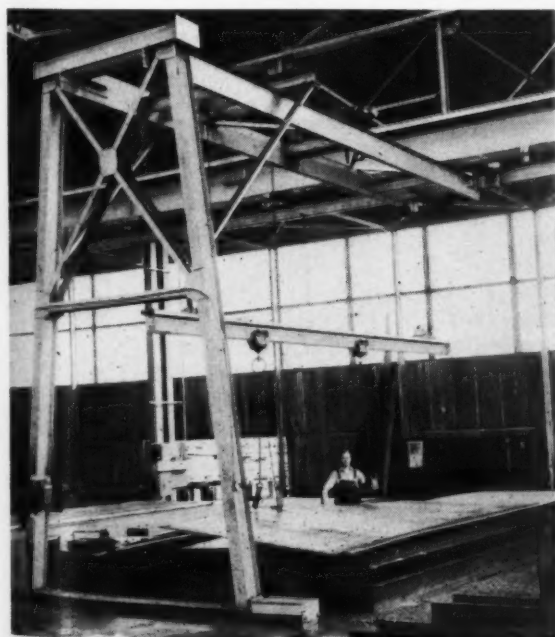
equipped with one or two jib cranes for handling material in and about the machines. In addition, there are two jibs in the storage yard, at the saw and at the shear.

Also in the storage yard is the plant's longest crane, a single-bridge cab-operated crane with a 90-ft span. It is equipped with two 7½-ton trolleys, and thus has 15-ton lifting power. Because of its great span, the crane can accommodate the longest

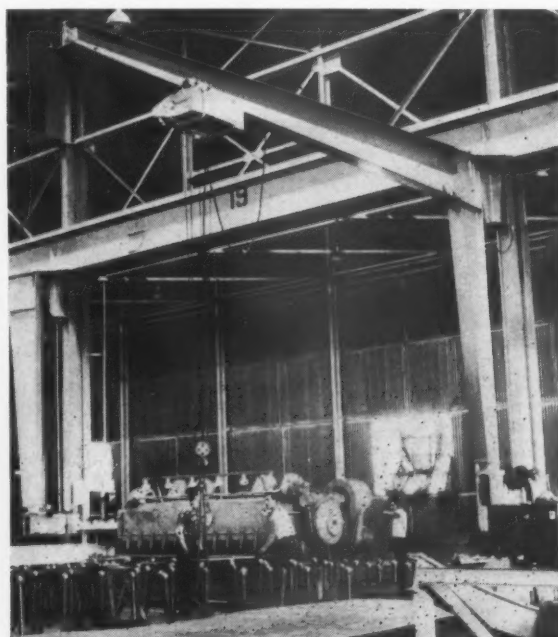
pieces received, which may measure up to 65 ft. Typically, the crane is used to hoist plate or structural steel out of railroad cars and stack it along the 720-ft. craneway. With the double-trolley arrangement, two stacks of plates may be moved at a time, thereby speeding the unloading of cars.

The plant has devised an interesting labor-saving device for bringing in plate from the storage yard to Shop

... continued on page 58



**SINGLE-LEG GANTRY** in preparation shop is typical of the many cranes of this type used throughout plant. This one has two hooks on a suspended beam.



**27-FT. WORKING RADIUS** permits jib cranes to overlap each other in plant's 36-ft. bays and transfer between operations without tying up bigger cranes.



# How **SKF** Saved in 7 Ways

and at the same time improved its roller  
bearing cages by using the right

## Revere Brass Strip

**SKF** Industries, Inc., Philadelphia, Pa., like other progressive organizations, is constantly seeking new ways to improve its products and at the same time cut production costs.

With this in mind they recently reviewed the kind of brass which was being used in

their spherical roller bearing cages from the standpoints of quality and fabrication. It was then that Revere's Technical Advisory Service studied the problem first-hand and made recommendations to the **SKF** production and engineering departments.



**SKF** IMPROVED TYPE "C" Spherical Roller Bearing cut away to show how the cage, made of Revere Brass Strip, fits into the bearing. Due to its advanced internal design, this bearing provides greatly increased capacity and service life.



HERE IS "window-type" cage of **SKF** Spherical Roller Bearing, made in two pieces, one for each row of rollers. Cage is made from rugged Revere Brass Strip at the Shippensburg, Pa., plant of **SKF** Industries, Inc.



The result was the adoption of specification changes in brass strip as recommended by Revere which gave **SKF** these 7 money, time and tool-saving advantages:

- 1 One bore pressing operation has been eliminated. Machining is more easily accomplished. Less machining is required.
- 2 Tool life has been increased with some speeds increased up to 100% and feeds up to 30%.
- 3 Rework due to burrs has been greatly reduced. One step less is required in the deburring operation while savings through reduced cycle time for remaining deburring operations are up to 40%.
- 4 Chips are small now . . . there is no "angel hair" to clutter work area.
- 5 Life of punch used in notching roller bearing cage has been doubled. Now a run may be completed without making tool adjustments due to sharpening tools.
- 6 Machining speeds and feeds have been substantially increased over those in machining the former alloy.
- 7 Die setters report that considerable work has been eliminated in setting up the tools used.

And, all of these money-saving things were accomplished without sacrificing quality—in fact the quality of these roller bearing cages was *improved!*

This is still another eye-opening example of Revere supplying the metal that will do the best job and with the greatest economy . . . be it brass, copper or aluminum or any one of their alloys.

Why not call in Revere's Technical Advisory Service to review your operation? It may mean money saved with an improved product to boot.

#### REVERE COPPER AND BRASS INCORPORATED

*Founded by Paul Revere in 1801*

230 Park Avenue, New York 17, N.Y.

LOS ANGELES:

6500 E. Slauson Ave. Raymond 3-3331

SAN FRANCISCO:

116 New Montgomery St. Sutter 1-0282

SEATTLE:

314 Fairview-North. Main 1401



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OVER **50** YEARS

of Engineering and  
Manufacturing Experience

make **MATHEWS CONVEYERS** your best buy



A truck haul applied to handle merchandise in the warehouse of a southern California manufacturer. Trucks are received and discharged automatically in this extensive trolley conveyor system.

It was over 50 years ago that the first Mathews Conveyers were designed and built—and from that early equipment has come the development of the Mathews **continuous flow** conveying systems of today. In these 50 years Mathews engineers have developed a complete line of gravity and power conveyers and special conveying machinery to serve nearly every class of industry in the United States and Canada. Whatever is required in the way of modern conveying machinery, you'll find that Mathews has it, and that Mathews Conveyers are your best buy.



**MATHEWS CONVEYER COMPANY WEST COAST  
SAN CARLOS, CALIFORNIA**

LOS ANGELES • PORTLAND • SEATTLE • DENVER • FORT WORTH  
DALLAS • HOUSTON • EL PASO • HONOLULU, T. H. • SALT LAKE CITY

**MATHEWS**  
*Fifty Years of Leadership in Mechanized Handling*

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See Directory listing page 138

No. 1 It is a five-ton capacity gantry electromagnet on floor rails, straddling a roller table. Plate enters through the side of the building and is picked up by the magnet and rolled forward to a shape-cutting machine. By freeing the ten-ton crane, the magnet has eliminated some three man-hours per day. It also better utilizes the lean-to area of the building—between columns and outer walls—which the larger crane can't handily service.

#### Bridge cranes work in or out

Shop No. 1 has two 80-ft. bridge cranes: one is cab-operated with a single hook of ten-ton capacity, the other is a five-ton floor-operated crane which normally covers a 360-ft. run over the warehouse section. The larger crane has 328 ft. of travel because it goes out of the building over the railroad track. Its function is material transfer from the saw, shear or burning area to the bending machines, punches or to the fitting shops.

A 15-ton ground-operated 35-ft. bridge crane is located at one end of Shop No. 1 for vertically assembling tubular sections up to 40 ft. in height. These production items, such as gasoline storage tanks or water towers, are generally built from the top down over an eight-foot diameter well in the floor, so that assembling can be done at a convenient height.

One of the two types of single-leg gantries in the plant is used in the layout and burning area—one gantry at each end of that department. They are boom gantries; that is, a 27-ft. I-beam is suspended below each crane, and two two-ton hoists ride on trolleys on each I-beam, so each gantry has a four-ton capacity. Suspending the beam eliminates the cost of one hoist.

#### Variety of gantries

The second type of gantry is a single hoist riding on an I-beam which is part of the gantry itself, of which there are four in the plant. A 7½-ton unit is used at the plate rolling machine, two five-ton gantries in the structural fitting shop, and a two-ton crane which loads a conveyor for grit-blasting and painting. The conveyor is a continuous overhead circular chain with hooks every six feet around a 250-ft. perimeter. The 7½-ton has 105 ft. of travel, the 5-tonners 360 ft. in Shop No. 3 and the conveyor crane travels 105 ft.

Plate fabricating (Shop No. 2) is outfitted with 17 jib cranes over which runs an 80-ft. cab-operated 10-ton bridge crane. It travels the 440 ft. in the shop and another 280 ft. into



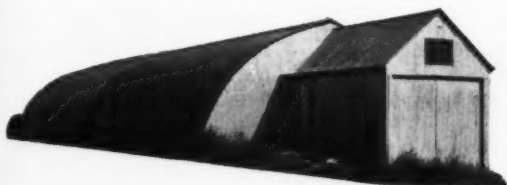
*whatever you need*  
**build it better...faster...for less...with steel**



*Service Station by Fentron Industries*



*Plant Office by Calcor Corporation*



*Potato Cellar by Boise Payette Lumber Co.*



*Warehouse by owner*

*Steel is the one material that gives you  
 ALL these important building advantages*

**GREATER STABILITY** and longer life can be expected when you build with steel, the versatile metal.

**LOW COST:** Steel construction is precise, simple and fast. You get more usable space per dollar.

**PROTECTION:** Steel is your best protection against fire, wind, snow loads and stress from cranes. Steel is permanent!

**VERSATILITY:** Steel buildings are being used for every purpose. If you need a new building fast; one that will last . . . specify steel.

*For offices, plants, stores, schools, farms, warehousing...*

**Give your buildings the advantage of steel**

United States Steel Corporation • Columbia-Geneva Steel Division • 120 Montgomery Street, San Francisco 6



**UNITED STATES STEEL**

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 See Directory listing page 125



## NORTHERN CALIFORNIA

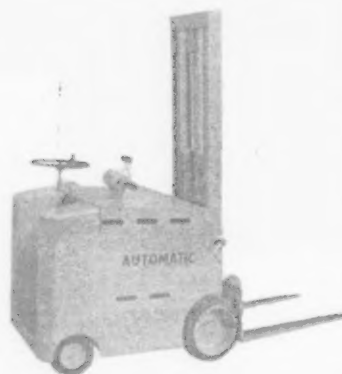


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Associates

253 Fourth St. TE 6-2082  
Oakland, California



## SOUTHERN CALIFORNIA



DISTRIBUTOR

### L. J. LUTZ CO.

7962 Salt Lake Ave.  
Huntington Park, Calif.

KL 5102  
LUdlow 8-5102

... for more details, circle No. 40



**GANTRY CRANE**, on rails in fabricating department straddling a 50-ton hydraulic rivet squeezer, travels without hindrance under bridge crane.

the painting-shipping yard, through a slot in the end of the building. A 28-ft. single-leg gantry with 7½-ton hoist travels 105 ft.

Shop No. 3 (structural fabrication) has two huge bridge cranes, both cab-operated 80-footers with a travel of 720 ft. through the end of the building to the grit-blasting shed. Occupying the same set of rails, one has a ten-ton hook, the other has both a five-ton and a 25-ton hook on a single trolley.

In this shop are nine jib cranes and three gantries. Two are single leg type, each of five-ton lift with 27-ft. span and 336-ft. travel. The third is a floor-operated rivet gantry which resembles a gigantic four-poster bed: it is used to position a hydraulic rivet squeezer over work to be joined. It has a 25-ft. span and travels 72 ft. on rails in the floor.

As a rule, one of the two cab-operated cranes is working outside in the paint-shipping area, but any of the three cranes in Shops 2 and 3 can work there.

A separate entity is the construction equipment warehouse, located away from the main building. It has a 7½-ton single hook floor-operated bridge crane with 40-ft. span and 190 ft. of travel both in the building and in the outdoor storage section. Since the company erects nearly all the work it fabricates, it maintains a substantial inventory of heavy equipment to aid in the construction work.

Two 20-ton mobile cranes, mounted

on heavy-duty truck chassis, operate in the field. They are rigged with sectional booms which can extend as high as 110 ft.

Two gasoline fork lift trucks are used in the plant to handle palletized items, chiefly in the warehouse section of Shop No. 1. One has three-ton capacity; the other, two tons.

Push cars are used on floor rails to transfer work from one shop to another. And some of the jib cranes, with their broad arc, can swing material from one craneway in one shop into another shop's craneway.

Material handling is constantly under study at the plant, which is one of five in the West (the others are at Fresno, Sacramento, Stockton and El Monte). Currently on the agenda is a plan for substituting electromagnets for plate-hooks in the storage yard, thus substantially reducing storage and unloading labor time, since handling plate-hooks is usually a two-man job. Naturally, electromagnets can't be used in the shops over workmen, but in the yard there would be no risk in case of current failure.

In 1956, the Santa Clara plant, which works 148 men on one daily shift, shipped 27,132,000 lb. of fabricated material, besides some 10,000,000 lb. of jobbing warehouse material. For expediting handling of such a vast quantity of steel in a myriad of shapes and forms, management gives due credit to the plant's up-to-the-minute pacemaker material handling system.



# Automatic

## DOCKER...THE LIFT TRUCK

### THAT WORKS WHERE OTHERS CAN'T

*Shortest in its class...unmatched for easy maneuvering  
...and for efficient low-cost operation*



**PAPER**—Marcal Paper Company slashes loading time per boxcar from 12 man-hours to 1½ man-hours. DOCKER illustrated is equipped with rotating paper roll clamp for unloading and tying 800 lb. paper rolls.

Illustrated are only a few examples of the DOCKER'S versatility. This extra-compact, more maneuverable truck offers more advantages than any other of its type for materials handling in any industry. It is especially desirable where space is limited... works with ease inside trailers, freight cars and in aisles too narrow for other similar trucks.

What's more, direct comparison shows clearly how definitely superior the DOCKER really is. Here are the figures:

	DOCKER	TRUCK A	TRUCK B	TRUCK C
2000 LBS. WITH LOAD LENGTH OF	48"	30"	40"	30"
SHORTER..... OVERALL LENGTH LESS FORK	53½"	65½"	65½"	64"
SAFER-EASY ON, EASY OFF..... STEP HEIGHT	7"	13"	13¾"	13½"
MORE PRODUCTIVE..... LIFT SPEED F.P.M.	65	55	45	45
MORE VERSATILE..... GRADE CLEARANCE	45%	43.4%	45%	35%
MORE MANEUVERABLE... TURNING RADIUS	56"	59"	64"	57"
MAXIMUM HEAT PROTECTION. CLASS H, SILICONE INSULATED MOTORS—ALL MODELS	Yes	No	No	No

Send today for complete information including case histories of installations similar to your own.

# Automatic

Dept. D-7, 121 West 87th Street  
Chicago 20, Illinois



**FOOD AND COLD STORAGE**—Operating in temperatures ranging from plus 38° to minus 10° F. dependable Automatic DOCKERS working around-the-clock speed handling of perishable foods for Inland Storage Co. Fifteen cars at a time can be unloaded at the above dock deep inside this mammoth "deep freeze."

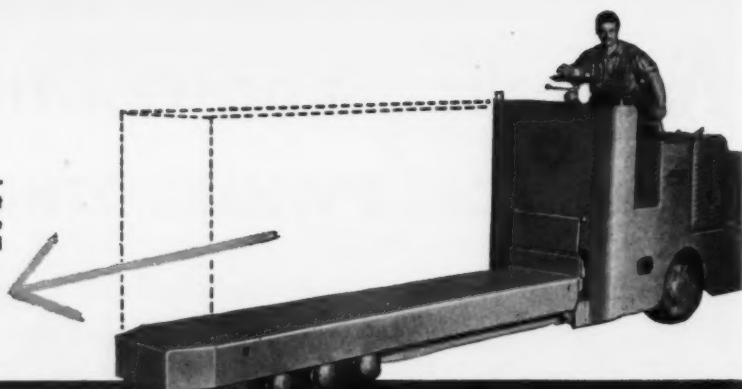


**FABRICATED METALS**—DOCKER is placing steel coil on an automatic feed device for a punch press in the new Briggs and Stratton Plant, Milwaukee. Throughout this plant, which is a model for plant planners, DOCKERS keep materials moving from receiving through production to shipping.

... for more details, circle No. 41 on Reader Service Postcard  
See Directory listing page 120



Sit-down type, operator facing load. For relatively short hauls and when loads are frequently picked up and deposited.



**ANY WAY YOU LOOK AT IT...**



ELPAR stand-up low lift platform truck.

**ELPAR LOW LIFT PLATFORM TRUCKS**

Sit-down type, operator facing away from load. For long hauls and for handling bulky loads which would otherwise obstruct vision.



**MOVE LARGER LOADS AT LOWER COST**

Lower your cost per load by keeping fork trucks on the high-lift jobs for which they are intended . . . use ELPAR low lift platform trucks for long-distance horizontal movement of materials. ELPAR platform trucks: (1) handle much bigger loads than fork trucks of comparable cost, (2) weigh much less than fork trucks of comparable capacity, (3) are much simpler in design. Therefore, they cost less to buy, operate and maintain.

Only Elwell-Parker Makes All Types—Complete ELPAR line includes electric- and gasoline-powered *stand-up* models in capacities to 80,000 pounds and two types of electric-powered *sit-down* models in capacities from 10,000 to 20,000 pounds. All feature ELPAR *built-in dependability*—your assurance of 10 or 15 years of steady service.

Investigate . . . send for General Catalog and Bulletin 15.

ELWELL-PARKER ELECTRIC CO. WESTERN REPRESENTATIVES:

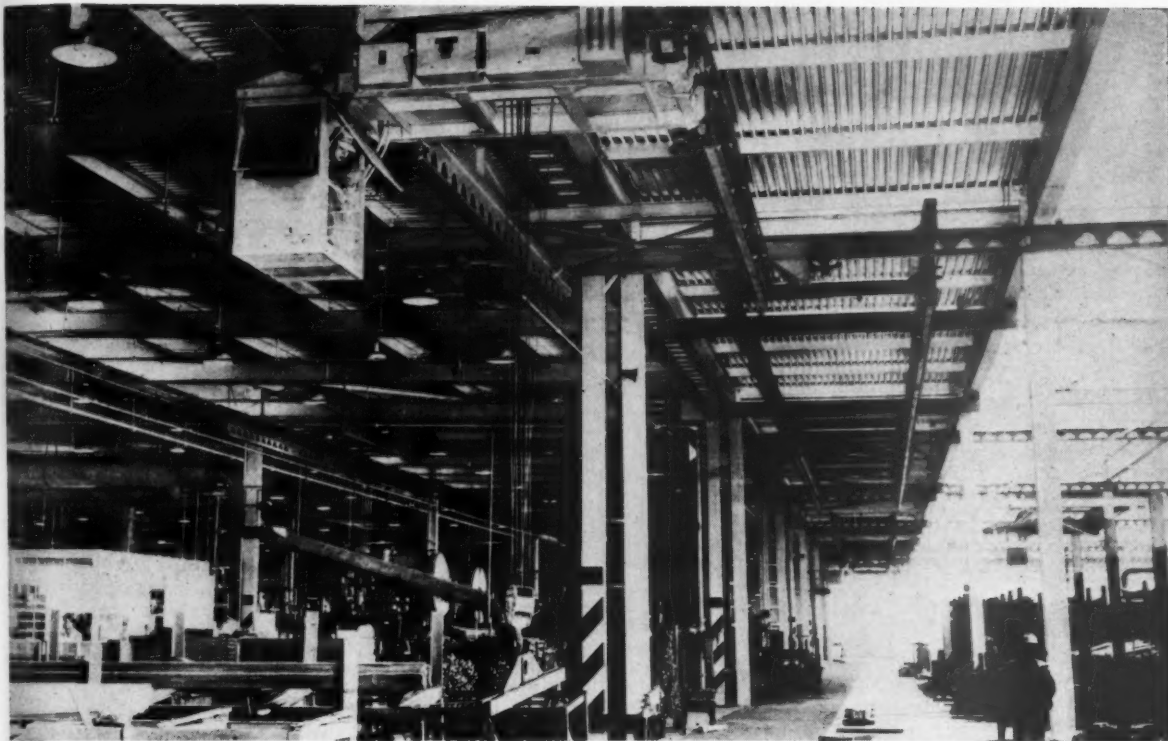
Los Angeles . . . J. W. LAFFERTY CO., 5422 E. Washington Boulevard  
San Francisco . . . IRA G. PERIN CO., 575 Howard Street  
Seattle . . . COLBY STEEL & MFG. INC., 3155 Elliott Avenue

. . . for more details, circle No. 46 on Reader Service Postcard  
See Directory listing page 127

WESTERN INDUSTRY — April 1957







**FLEXIBILITY AT THE START**, with raw material transferred from open steel storage bays by 5-ton cranes to first manufacturing operations. Cranes in seven 60-ft. bays may be transferred from one craneway to another via interlocking crane rails.

## M-H at the guts of automation

★ **M-H PACEMAKER** shows how cranes, monorails and conveyors can merge with big production operations to achieve flexibility, continuous high-speed flow, and automation to an advanced degree.

A "FOOTBALL FIELD" FULL of pacemaker material handling ideas—that's what you'll find at the new plant of Rheem Automotive Co. at Fullerton, Calif. In the production of bumpers, chassis coil springs and other Rheem Automotive products required in quantity by the West's automotive assembly plants, operations to date have indicated a 50% reduction in material handling costs compared with how it was done at the firm's old plant in the Vernon industrial area of Los Angeles.

Take a look around the new plant and you'll decide that no words could describe it better than—*flexibility, continuous production flow, and automation*. In defining what you mean by these terms, you'll always get back to the material handling equipment that made it all possible.

An example? Take the "flexibility" feature. You'll find it strongly exem-

plified in the plant's overhead crane installations. Seven of the nine storage bays are equipped with 5-ton tramrail cranes. Six of the tramrails have interlocks and crossover rails so the cab and hoist units may be transferred from one bay to another, thus providing maximum utilization of equipment. All crane rails extend 40 ft. into the manufacturing area for delivery of material to the first operation.

### M-H makes the production flow

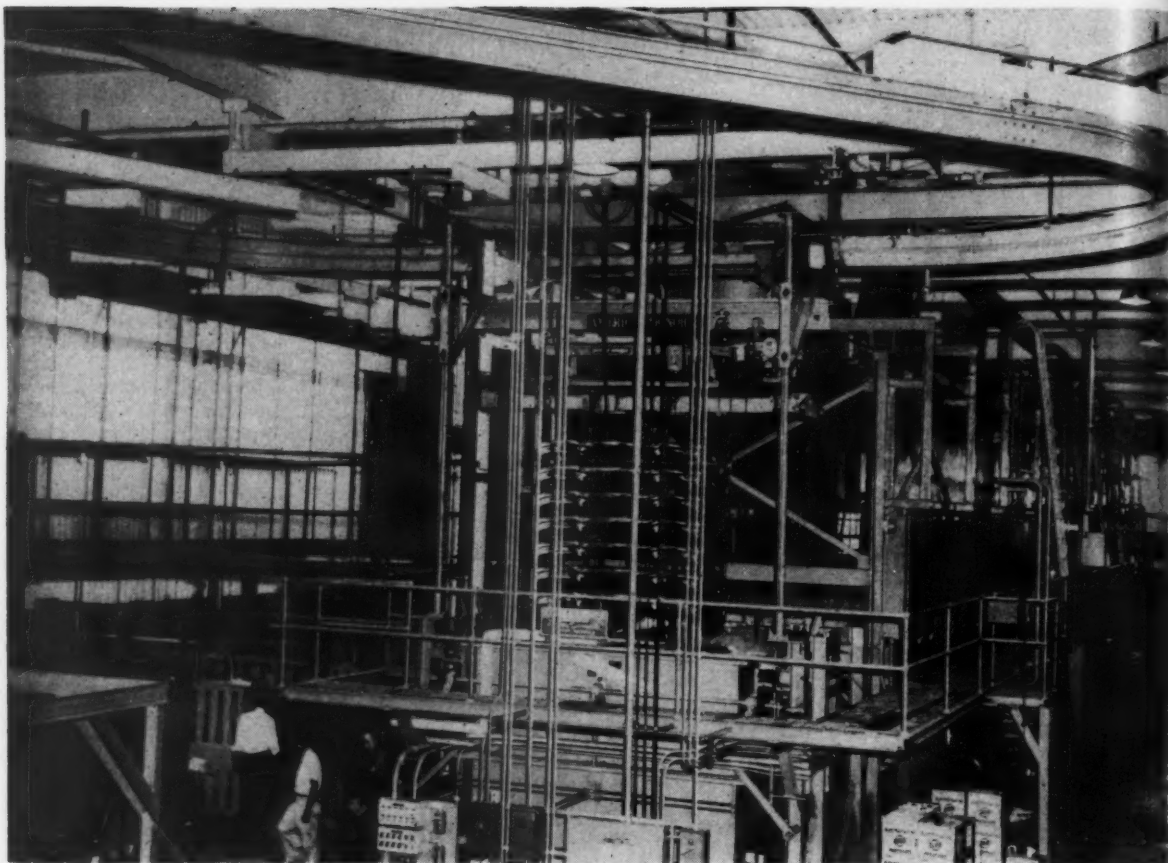
An example of "continuous production flow"? Let's take a quick trip through the forming and plating of a bumper to see how it works.

Bumpers are made from panels of hot rolled low alloy high tensile steel, purchased in proper widths to form two bumpers from each panel. Upon receipt of these panels, they are first

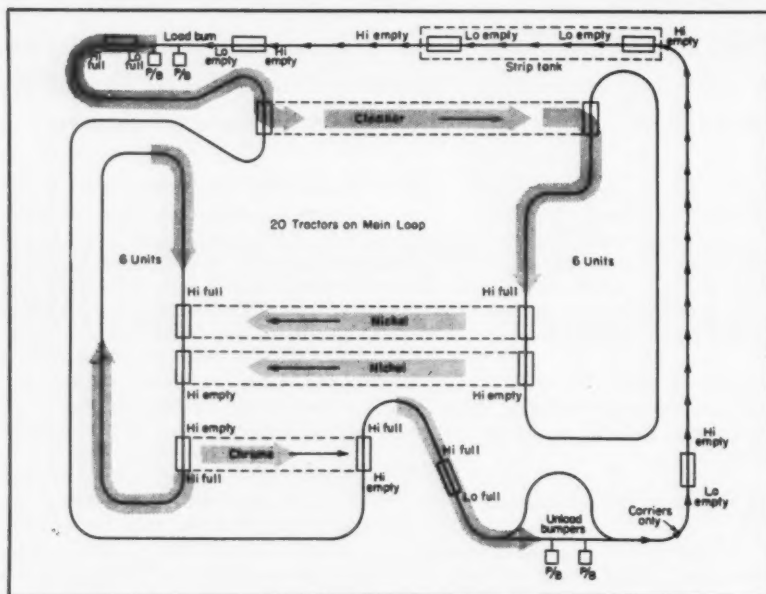
pickled and then transported to an automatic unloader. The unloader picks each panel from a stack and positions it on a belt conveyor which, in turn, feeds it into a level roll machine and then through a 12-stage continuous flat bed polishing operation. At the end of the polishing cycle, each panel is visibly and instrumentally inspected. Here, the panels are segregated into acceptable, rerun or scrap categories. The acceptable panels continue on the conveyor to a transfer unit where they are transferred to a unit to be bonderized, rinsed, coated with drawing compound and baked, all automatically.

From this process, panels are conveyed to the panel stacking machine, and from there they are drawn into a 1,900-ton double action forming press. Manual handling is used during the forming operation. The 1,900-ton press forms two bumpers from each





**AUTOMATIC DELIVERY** of plating rack load of bumpers is delivered here via overhead American MonoRail system from rack loading station. Automatic cleaner line then will transfer bumpers through 17-tank cleaning unit.



**BUMPER PLATING INSTALLATION** designed by American MonoRail and Udyllite Corp. is made up of three separate automatic monorail systems. Arrows indicate production path from load to unload point. Overall arrangement compensates for the variation in processing time between the cleaning, nickel and chrome plating, and stripping processes. (Drawing reproduced courtesy of "Automation" Magazine, Penton Publishing Co., Cleveland.)

For more details, adv. opp. pg., circle No. 43 on Reader Service Postcard ➔

panel. The ends are trimmed and the reverse bend of the tip is preformed before parting the two bumpers. Holes are pierced in either the parting or top edge trim operation. The last operator puts the formed bumper on a belt conveyor for final inspection.

The units are then hung on a conveyor which carries it to the Finish-Polish Department where the formed bumper is automatically steel buffed on special machines which buff the entire surface of the bumper. From here, a conveyor takes them to the Central Inspection Department where they are separated for reruns or conveyed to the Plating Department.

#### Conveyed automatically in process

At the Plating Department the bumpers are removed from the conveyor and placed on plating racks. The racks convey the bumpers through an automatic cleaning and rinsing cycle, after which they are given a copper strike. The racks of bumpers are manually operated through the nickel and chrome tanks (re-buffing is sometimes necessary after the nickel strike). Following the





BETTER FASTER

Low Temperature  
**EUTECTIC**  
WELDING ALLOYS

STRONGER WELDS

# EUTECTIC Welding News

PUBLISHED BY EUTECTIC WELDING ALLOYS CORPORATION, 40-40 172 STREET, FLUSHING 58, NEW YORK, N. Y.

## AUTHORITY ON WELDING, DR. G.M.A. BLANC TO LECTURE IN THE UNITED STATES IN APRIL



Rene D. Wasserman, President of Eutectic Welding Alloys Corporation, has announced that Dr. of Engineering G. M. A. Blanc, in charge of research activities of Castolin, European affiliate of the international "Eutectic" organization, will visit the United States in April. Dr. Blanc, who received the doctorate in electrical engineering from the Swiss Polytechnic Institute in Zurich, is head of the Brazing Committee of the International Institute of Welding, and a popular lecturer at European universities interested in welding research.

During his visit here, Dr. Blanc will lecture at Massachusetts Institute of Technology and other American and Canadian colleges and universities. He

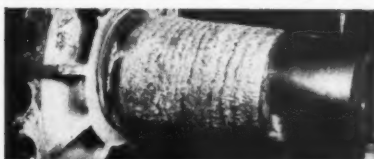
will also hold consultations with leading research and welding specialists of American industries.

Dr. Blanc will speak on the following subjects of major importance to welding and research specialists: "The Experimental Determination of Bonding Temperatures"; "Production Brazing"; and "Fundamentals and Applications of Low Heat Joining of Metals."

To all who are interested in the latest welding research developments, Dr. Blanc's talks should prove stimulating and useful. Reprints are available free on request from Eutectic's Technical Information Service. (A-61)

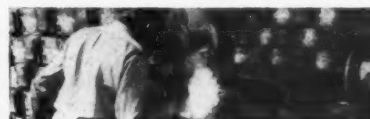
### 9 TON SHAFT OVERLAYED BY EUTECROD 185 IN 8 HOURS

The bearing end of this nine ton, 23-foot motor drive shaft was badly worn by 11 years of operation. An eastern utility company thought repair would be lengthy and expensive until Eutectic's District Engineer suggested EutecRod 185, patented BronzoChrom overlay with highest resistance to frictional wear. EutecRod 185 repaired the shaft in eight hours, with great savings in materials and labor.



### EUTEC-CHAMFERTRODE SPEEDS CUTTING AND CLEANING TIME

A Texas oil refinery dis-assembling worn catalysp chains before rebuilding them tried a number of conventional cutting methods without achieving clean, fast cutting. Eutectic's District Engineer recommended Eutec-ChamferTrode, high speed gouging electrode for all metals. Fast, clean cutting action of ChamferTrode resulted in faster dis-assembling, easier re-welding. ChamferTrode requires no oxygen or special equipment. Its



exothermic coating concentrates the force of the arc right at the point of application, yielding a highly efficient metal removing tool. (A-63)



In answering industry's requests for technical data, Eutectic's research and engineering staffs help industry save thousands of dollars each year. Your question, like those below, will be answered without obligation by Eutectic's Technical Information Service.

**Q.** We have found Eutec-TinWeld ideal for manufacturing several of our products. For large scale production, what method would you recommend for applying TinWeld to the parts to be welded?

**A.** We suggest you test these two methods to see which best suits your needs. After thinning, Eutec-TinWeld can be applied by using mechanical rollers to transfer automatically the paste from the hopper. A constant uniform supply can be produced with a series of three rollers, one transferring to the other. The second method is to use a pump ejection system. Fill a cylinder with Eutec-TinWeld and force it through an opening with a piston. By using compressed air, this method can be used to dispense the paste from an overhead hopper, as well as spraying it through an atomizer.

**Q.** We are a large newsprint and paper manufacturer and require a great deal of hard overlaying of chipper bed knives. What EutecTrode do you recommend for this application that will provide exceptional edge retention qualities?

**A.** EutecTrode 6-HSS is ideal for your needs. Its special "Frigid Arc" coating permits welding at lowest possible amperage, with minimum dilution and great freedom from porosity. It produces a hardness of RC 62.



Eutectic Warehouse—Service Centers

1108 Blake Street, Berkeley 2, Calif.  
1414 South Street, Phoenix, Arizona

### Eutectic Welding Alloys Corporation 40-40 172nd Street, Flushing 58, N.Y.

Gentlemen:

I would like further free information on the following:

- ☐ A-61 ☐ A-62 ☐ A-63  
☐ Free 170 page pocket Welding Data Book.

Name \_\_\_\_\_

Business Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

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EUTECTIC WAREHOUSE—SERVICE CENTER • 1414 SOUTH STREET, PHOENIX, ARIZONA

EUTECTIC WELDING HEADLINES—TIME—MONEY—MACHINERY SAVERS



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Mount your equipment on UNISORB, thereby reducing installation and maintenance costs. Thousands of present users attest this saving! (For booklet, samples and estimates, check proper space below.)

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Check with FELTERS COMPANY for cut felt parts, mechanical and technical felts to any specification; filter felts, decorative felts and specially treated felts—we supply 'em all! (For free 24 page felt design book, check space below.)

Yours for lowered costs, increased profits and finest products.

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#### Taylor Felt & Supply Company

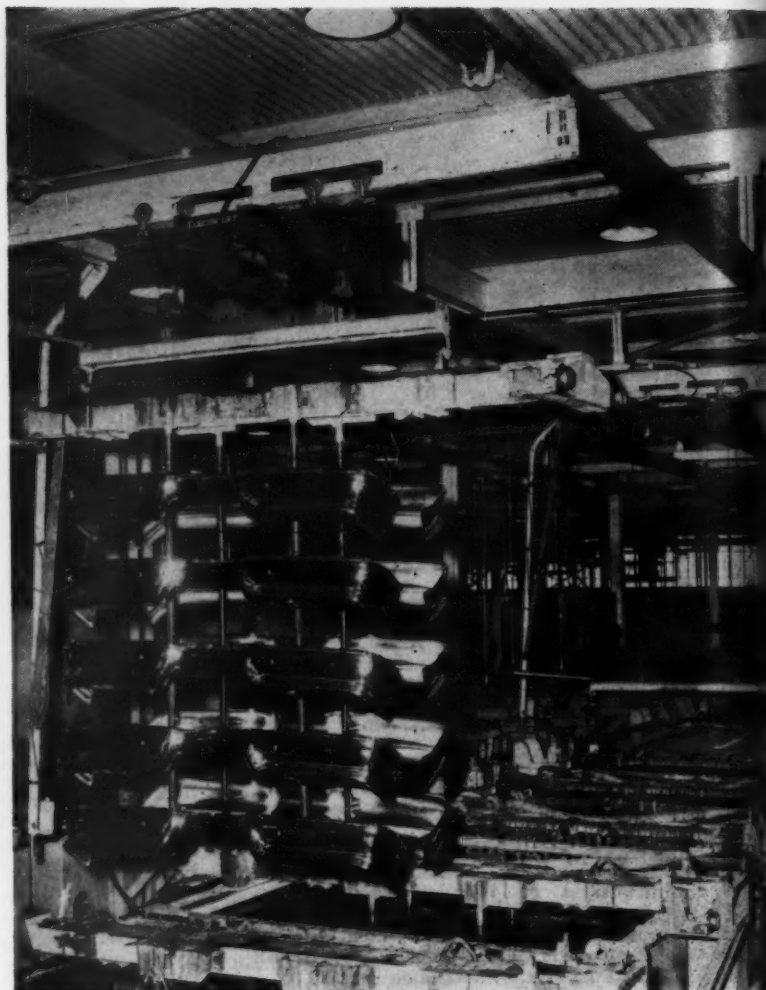
718 Mission Street  
San Francisco 3, Calif.

Kindly send full information and  
samples of UNISORB ☐  
and/or 24 page Felt Design Book ☐

Firm name.....address.....

attention.....product.....

... for more details, circle No. 44



**CARRIER WORKING ITS WAY** through the nickel tank line. Some manual handling is required here when rebuffing is necessary after the nickel strike.

chrome application, the bumpers are again inspected and conveyed to the Shipping Department.

Hence, with just a couple of necessary exceptions, the entire operation from original unloading to receipt by the Shipping Department, has been expedited by use of conveyor systems and automatic handling of parts enroute.

#### Eight men; 450 units per hour

Examples of "automation" at the plant? All along the bumper production line, described above, there are plenty of examples. But let's take a look at another operation to complete the automation picture at Rheem Automotive—chassis coil spring production, done almost entirely by automatic methods, with just eight men able to produce 450 completed springs per hour, starting with the raw material and proceeding through heating,

coiling, quenching, tempering, shot peening and load test operations.

Bar stock for the coil springs is purchased finish-ground to size. Upon receipt of this material, it is loaded into a hopper and fed automatically into an end-heating furnace. From here, it is removed and automatically point rolled and ejected onto a conveyor which carries it to another hopper, from whence it is fed into a high-heat furnace and then automatically conveyed to a coiling machine. After coiling, it is dropped into a receptacle from which it is picked up and properly positioned into a quenching machine. After quenching, it is picked up and conveyed, three springs at a time, into a continuous-draw furnace, after which it is automatically conveyed into a shot-peening machine.

Next, a conveyor feeds them into a bulldozer where they are automatically bulldozed and conveyed to a



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1957

## Where the "stress" is on strength

**B**BETTER than 4500 horsepower in today's Diesel units can send crack trains highballing down the main track at close to 100 mph.

Pounding up and down hundreds of thousands of miles a year . . . starting and stopping countless times . . . whipping around curves . . . this is service that subjects these 350,000 pound "iron horses" to fearsome stresses.

Naturally, the thousands of standard nuts and bolts that keep these powerful streamliners together *must* be absolutely reliable . . . *must* be strong, flawless.

**RB&W — A MAJOR AND RELIABLE SUPPLIER**  
A leader in its field for over 111 years,

RB&W continues to turn out the finest fasteners for the nation's vital railroad industry and, in fact, for virtually every major industry.

*Modern facilities, new techniques, long experience . . . all combine to make RB&W fasteners truly the "strong point of any assembly."*

### CONTACT THE RB&W "FASTENER MAN"

Proper application of standard fasteners can save you money. Ask the RB&W "Fastener Man" to show you how. Contact your nearest RB&W office.



**RUSSELL, BURDSALL & WARD  
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**Plants at:** Los Angeles, Calif.; Rock Falls, Ill.; Coraopolis, Pa.; Port Chester, N. Y. **Additional sales offices at:** San Francisco; Dallas; Detroit; Chicago; Pittsburgh; Ardmore (Phila.), Pa. **Sales agents at:** Denver; Milwaukee; New Orleans. **Distributors** from coast to coast.

**RB&W FASTENERS - *Strong Point of any assembly***

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April 1957 — WESTERN INDUSTRY

67



# In Constant Service For 15 Years

## Three Interlocking Tramrail Cranes Keep Hardware Materials Moving

Floor-operated, push-button-controlled, completely motorized transfer cranes in open warehouse. The cranes run on three tracks supported by the wood trusses. A simple adjustment for leveling Cleveland Tramrail track makes it ideal for any building, especially wooden structures which are subject to sagging and shifting.

*Excerpt from letter of Mr. Gilbert Schnitzer, Pres., Woodbury Hardware Company, Portland, Oregon.*

"... and if anyone should inquire of us as to service they have given us in the past 15 years, we shall be very happy to give him an excellent testimonial.

"The cranes have been in constant service since they were installed. The warehouse was first occupied by Woodbury & Co. for storage and distribution of steel plates, bars, structurals, and kindred items, and the cranes had heavy service for several years. The capacity of 3 tons, as you might imagine, was often exceeded, but the flexible suspension, plus the excellent material and construction of the bridge and sturdiness of the hoists, took care of these occasional overloads."



**T**HREE 3-ton, 67'-0" long Tramrail cranes on parallel runways provide fast, efficient handling for a tremendous assortment of hardware materials at the Woodbury Hardware Co., Portland, Oregon. One crane covers a large open warehouse room, and the other two operate over a mezzanine storage. Two or three of the cranes can be interlocked, as required, to permit loads to be run from one to the other. Thus materials can be handled from any point on the mezzanine to any area in the open warehouse room directly without rehandling the loads.

The Tramrail system has meant so much in speeding handling and easing the work at Woodbury Hardware that they declare: "We could not get along without it."

Write for free copy of Engineering and Data Booklet No. 2008. Packed with helpful information.

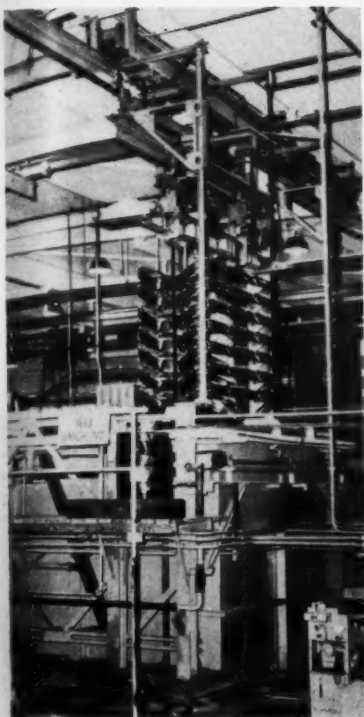
**CLEVELAND  TRAMRAIL**  
  
Overhead Materials Handling Equipment

CLEVELAND TRAMRAIL DIVISION • THE CLEVELAND CRANE & ENGINEERING CO. • 8830 E. 290 St. • Wickliffe, Ohio

... for more details, circle No. 42 on Reader Service Postcard  
See Directory listing page 124

WESTERN INDUSTRY — April 1957





**END OF THE LINE**—chrome-plated bumpers are removed from last operation by overhead monorail. From here, bumpers will be automatically transferred to final inspection and palletization.

load test machine for proper load testing. Here, they are placed on a table and marked for proper load. They are then hung on a conveyor which takes them through an automatic paint dip and drying cycle and thence to unloading and packing.

It is easy to see that this entire operation has been handled by automatic conveyor systems and automatized equipment. In addition, many other automotive parts are processed on a like production basis. Other equipment used includes mechanical and hydraulic presses from 75 to 2,500 tons.

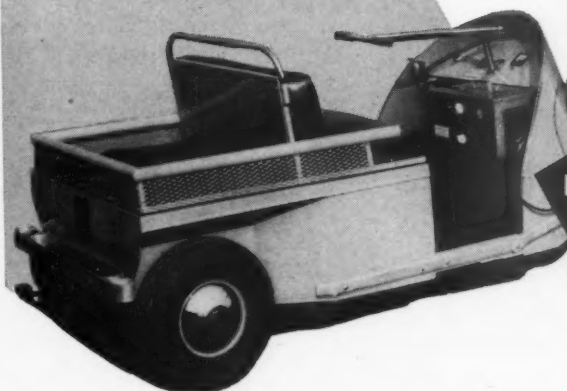
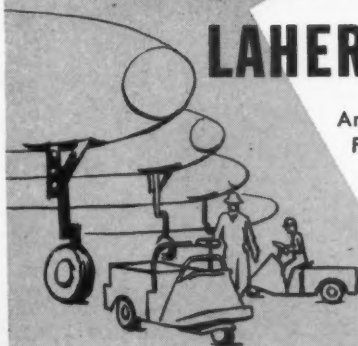
Conveyor systems are planned for installation to facilitate production handling between presses and other equipment. Other departments have been engineering for straight-line production from raw materials to the final shipping phase. All in all, the new Rheem plant is one of the most modern and efficient production facilities in the country, with pacemaker material handling equipment at the heart of its operations.

(For the description of another phase of the new Rheem Automotive plant, see "New Way to Reduce Power Costs," page 46 of the February 1957 issue.—Ed.)

## Aviation Industry Selects LAHER Electrics!

America's Aviation Industry has the World's  
Finest Engineers — They Specify  
Laher Electrics!

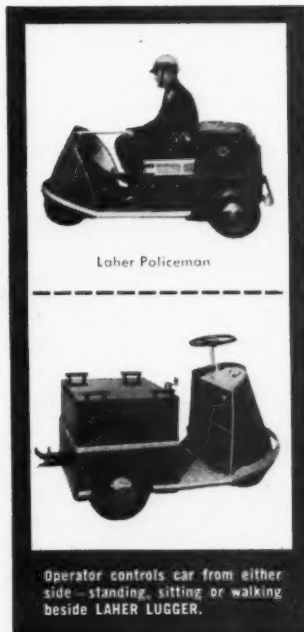
More than 100 Laher  
Electrics sold to  
Aviation Industry  
alone in  
December.



**NEW**  
LAHER engineering  
EXCLUSIVE!

Built-in, spring reel,  
type charger unit  
... any 110 outlet  
is your "gas sta-  
tion"—recharge  
anywhere,  
anytime.

**There is a LAHER ELECTRIC engineered to  
solve your material handling problem**



Laher Policeman

Operator controls car from either  
side—standing, sitting or walking  
beside LAHER LUGGER.

- Exclusive Laher LUB-O-MATIC Drive for smooth, easy starting and operating. Switch enclosed in oil bath to eliminate starting and operating problems.

- 6 powerful batteries (190, 230, 300 or 360 amp. available).

- Full elliptic springs front and rear, and finest foam rubber cushions for safety and comfort.

- Economical and trouble-free—runs for pennies a day.

- 20 models available for every use: Materials Handling, Police check cars, hotel bellhops, delivery cars, etc.

Write today for complete information.



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Electric Car Mfg. Div.

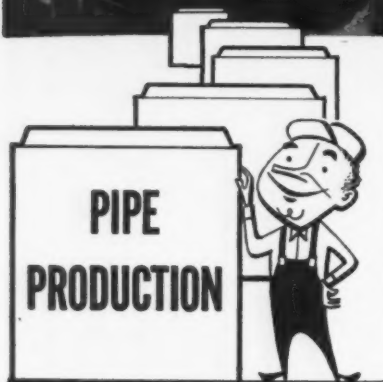
300 Madison Ave., Memphis, Tennessee  
2615 Magnolia St., Oakland, California

AMERICA'S ONLY COMPLETE LINE OF ELECTRIC CARS

... for more details, circle No. 47 on Reader Service Postcard

See Directory listing page 135





## ZOOMS

When you put Cleveland form vibrators on the job.

- adjustable vibration\* force
- quick-connect portable mounting brackets
- easy to maintain, only one moving part
- wide range of sizes, air or electric

Write today for a complete catalog and price list.

Air or Electric

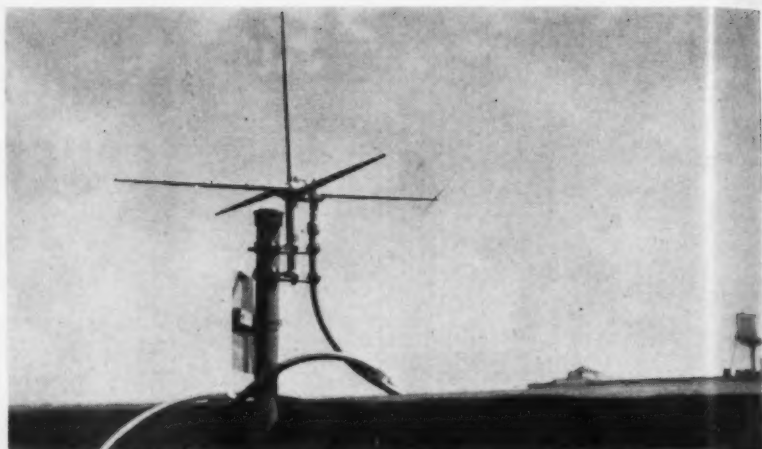
Portable or Permanent

Silent or Standard



2914 Clinton Avenue • Cleveland 13, Ohio  
7 Front St. • San Francisco 11, California  
... for more details, circle No. 48

70



**SPEEDY LINK** between material handling jobs and the lift trucks and delivery trucks serving Gates Rubber's many Denver, Colo., buildings is this two-radio antenna atop the main plant.

### ★ M-H PACEMAKER

## Super two-way radio reaches dead spots

A 10-WATT TRANSMITTER—first industrial transmitter over one watt allowed in the U. S.—is the key to the pacemaker material handling communication system put in operation last fall at Gates Rubber Co. in Denver.

Gates had long wanted to increase the speed and efficiency of its fleet of lift trucks and outside inter-plant trucks. Biggest stumbling block to a successful system was getting a radio powerful enough to overcome the static and interference in the factory and to reach "dead spots" (in a tunnel

and in the firm's power plant).

A powerful transmitter was an obvious solution. However, the Federal Power Commission had a regulation limiting the power of such a unit to one watt. Finally, a special FCC ruling allowed Gates a license for the 10-watt unit. Now, the high frequency signal can be picked up anywhere in the plant, and there is no static.

Under the old method at Gates, when a truck was needed the dispatcher flashed a colored light in the factory for the trucker. When the



**RELAY POINT** for important requests for lift truck or delivery truck service is the Gates radio dispatch station.

WESTERN INDUSTRY — April 1957



If you need a

# FROW\*

.....  
we  
can't  
help you...

but may we  
suggest this

**Garrett**  
"Famous Brand" \*\*



.... **\*THE FROW** was in wide use during the 1600's for fashioning shingles, laths, barrel staves and clapboards. This thick-bladed steel knife with the hammer handle was used with the "Frow Club" to split rather than cut through wood. Captain John Smith used it to split poles at Jamestown in 1673.

**\*\*STARRETT BAND SAWS** and hacksaws come in more than 100 different types and sizes for all types of wood and metal cutting. The complete line is carried by Garrett Supply.

Garrett carries only the most modern, most efficient items in the industry. To solve your problems we offer more than 100 Famous Brands of tools and industrial supplies and the finest service. Whatever you need, get it from Garrett!

**HEADQUARTERS IN SOUTHERN  
CALIFORNIA AND ARIZONA FOR THESE  
AND OTHER FAMOUS BRANDS**

Allen Socket Screws • Nice Bearings  
Gates V Belts • Putnam End Mills  
Jacobs Chucks • Greenfield Gages  
Nicholson Files

**GARRETT**  
SUPPLY COMPANY

a division of **THE GARRETT CORPORATION**

IN LOS ANGELES  
**LUdlow 8-7221**  
IN PHOENIX  
**ALPine 8-5701**

3844 South Santa Fe Ave., Los Angeles 58, California

130 West Madison St., Phoenix, Arizona







### CM METEOR Electric Wire Rope Hoist

½ to 5 ton capacities—Compact, enclosed design. Low headroom. Continuous hoist-duty motor with thermal overload protection for heavy duty service. Precision bearings and helical gears for long life. Only 110 volts at push button control.

# CM HOISTS

FOR { REPETITIVE PRODUCTION APPLICATIONS OR RUGGED MAINTENANCE WORK



ALSO  
CM Pullers,  
Trolleys  
and Cranes

### HAND or ELECTRIC—CHAIN or WIRE ROPE

CM makes them all! So you can choose a hoist that's perfectly suited to your own needs in a safe, highly efficient CM design. Three of the most popular models are illustrated. Specifications of other types and sizes on request.

### CM LODESTAR Electric Chain Hoist

½ to 1 ton capacities—First truly heavy duty version of small electric hoist. ¼ ton model weighs only 51 lbs. Heavy duty self-adjusting mechanical brake and regenerative electrical braking. Overload protection and upper-lower safety switches. CM-Alloy load chain.

### CM CYCLONE Hand Chain Hoist

¼ to 10 ton capacities—Easy to carry and lift. One ton model weighs only 36 pounds. Made of tough aluminum alloy. CM-Alloy load chain. High efficiency. Lifetime lubrication.



CALL the CM distributor for catalog, prices and fast delivery from stock.



## CHISHOLM-MOORE HOIST DIVISION

COLUMBUS McKINNON CHAIN CORPORATION

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REGIONAL OFFICES: NEW YORK, CHICAGO, CLEVELAND

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CM Distributors in All Principal West Coast Cities

... for more details, circle No. 50 on Reader Service Postcard  
See Directory listing page 124



**LOUD SPEAKERS** mounted atop electric lift trucks at Gates direct operators to their next assignments. Mike is handy for making a report when assignment is completed, or in case of difficulties.

driver saw the light, he had to stop at a phone and call the office for pick-up instructions. This led to some unavoidable delays. Or, duplication sometimes resulted when a trucker would pick up a load after which another vehicle had been dispatched.

With the new system, there is constant two-way contact between the dispatch office and the trucks (initially including 15 factory trucks plus two outside trucks operating between the many Gates buildings about the city). The trucks monitor (or hear) all messages and notify the dispatcher if they have picked up a load that has been assigned for pick up to another driver.

The combination transmitter-receiver mounted on each truck is slightly larger than a portable radio. In addition to being small, the units are easy to operate. A driver can learn to operate the sets with about one-half hour of instruction.

The base station, located in the trucking office, is slightly larger than the mobile units. The transmitter is mounted over the telephone switchboard for nearly direct communications between incoming calls from the various departments and the trucks. During the day shifts, the dispatcher relays all phone calls to the trucker in the area closest to the pick up point.

While the dispatcher is busy dispatching, an automatic telephone message recorder takes over and gets all messages coming in via the phone. The dispatcher then plays the messages back and relays them through to the truckers via the radio in a less busy moment.

Maintenance worries? None, since all sets are leased from RCA, and future repairs and improvements are RCA's responsibility.



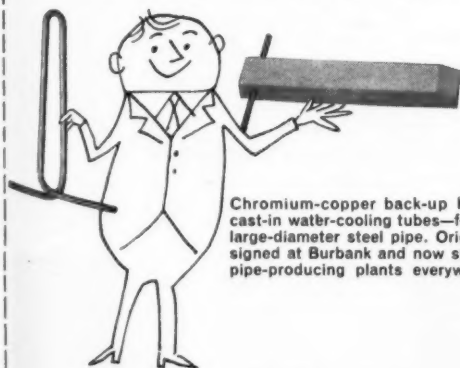
**AMPCO** went West . . . to give you the best . . .



*in Castings . . . and Service*



*Here's an example:*



Chromium-copper back-up bars—with cast-in water-cooling tubes—for welding large-diameter steel pipe. Originally designed at Burbank and now standard in pipe-producing plants everywhere.

Castings from a few ounces to 5,000 lbs. in alloys many foundries shy away from—chromium copper, pure copper, and bronzes hard enough for die work.

Back of Ampco engineers and production men at Burbank is 43 years of know-how. Complete facilities—including pattern and machine shops—under one roof.

Send for Bulletin 73W. Address Ampco Metal, Inc. 30 East Burbank Blvd., Burbank, Calif.

Main office and plant,  
Milwaukee 46, Wisconsin



Another plant growing in Burbank



**AMPCO**

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*Centrifugal Castings  
Sand Castings · Fabrications · Machined Parts*



# CONSULT *Alden* FOR YOUR MATERIAL MOVING METHODS

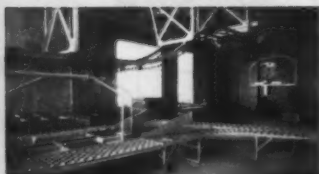
UNDERGROUND • SURFACE • OVERHEAD • STORAGE

Regardless of where you move material, you will find that Alden Equipment Co. has the conveyance designed to speed flow lines by more efficient and economical methods.



If it's mined, moved or processed—it's Jeffrey. Vibrating feeders, screens, conveyors, vibrating coolers and dryers. Belt conveyors. Screw conveyors. Bucket elevators. Pulverizers, crushers. Foundry equipment. Water, sewage and industrial waste treatment equipment. Mining machinery. Chains, sprocket wheels, transmission machinery.

A complete line of Loudon Machinery Company's monorail systems, cranes and hoists engineered for your plant. Suspended overhead, they remove traffic from floors, release valuable aisle space and reduce floor hazards and maintenance. Monorails have the flexibility necessary to make them usable for practically all material handling.



Mechanical Handling Systems are developed from a 30-year experience in the design, manufacture and installation of systems for all types of manufacturing operations, warehouses, docks and terminals—wherever goods or materials are processed, assembled, transferred or stored.



Alden Steel Racks are engineered to your individual needs to save space, promote safety, utilize labor more productively, keep your storage in better housekeeping order. Alden Racks minimize damage in transport and storage. They can be lifted and stacked or shipped loaded.

**A COMPLETE MATERIAL HANDLING SERVICE**  
Designing • Manufacturing • Installing

*Alden* **EQUIPMENT CO.**

1449 WEST ROSECRANS AVENUE • GARDENA • CALIFORNIA



## CONVEYORS

Belt	Apron Screw
Trolley	Roller
Tow Line	Gravity
Vibrating	

## CRANES

Bridge	Gantry
Hoists & Grabs	Jib

## MONORAILS

### POWER TRANSMISSION

Chains	Gears
Sprockets	

### RACKS AND WORK CARRIERS

### BUCKET ELEVATORS

Chain	Belt
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### CRUSHERS & PULVERIZERS

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Feeders	Barrel Packers
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Representing

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**MECHANICAL HANDLING**

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See Directory listing page 118  
**WESTERN INDUSTRY — April 1957**





**IT GOES TOGETHER**—one-piece wirebound mat of pallet bin is folded into shape. Closed with wire-loop fasteners and with heavy wooden base attached, the big container will be ready for use.



**... AND GETS LOADED**—from conveyor belt with 2,240 lb. of silicon in each bin destined to travel for use as an alloy at distant aluminum plant. Workers loading conveyor are not visible.

## Wirebounds solve a tough job

★ **M-H PACEMAKER** pioneers cost-cutting ton-per-package wirebound pallet bins to handle dozen grades and sizes of heavy metal alloying materials, with new flexibility in loading, shipping and end-use.



**STACKED THREE-HIGH** in storage, there is no danger that various contents will become mixed. Built-in structural safety of wirebounds makes stacking possible.

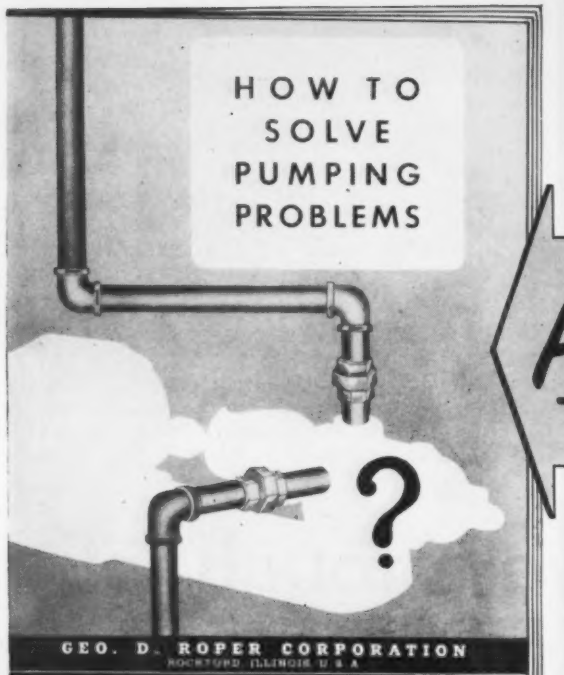
**T**AKE METAL ALLOYING MATERIALS in a dozen different sizes and grades, including finely crushed material. Then, try and devise a "package" that will contribute to reduced handling and loading costs for a variety of shipping and end-use requirements, with more than a ton to go into a single package.

That's what Keokuk Electro-Metals Co. at Wenatchee, Wash., has done, with a truly pacemaker solution to one of the toughest packaging and handling problems you could imagine. Here's the story, with first some background about Keokuk's operations.

Besides being known as "The Apple Capital of the World," Wenatchee, Wash., also is the source of an important supply of silicon metal so essential to the tremendous aluminum industry and of ferro-silicon metal used in the production of steel. Both metallurgical alloys are made from silica rock mined locally, plus iron scrap carbon, and other components



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Pacific Coast Office, Pump Division  
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See Directory listing page 143



**UNIQUE DEVICE**, lifted by a hoist and skidded beneath container, is used along with fork-lift trucks to carry the bins and to load flat-bed trucks.

added with the precision of medical prescriptions.

A fast-growing leader in the production of silicon and ferro-silicon metals in the industrially burgeoning area surrounding Wenatchee, Keokuk Electro-Metals Co., has a smelter at Rock Island, Wash., with a payroll of 230 workers, three furnaces in operation and a fourth about to go into action. Users of its products are in all parts of the country.

### Plenty of good will created

The company has pioneered in "packaging" the alloys, up to 2,240 lb. per "package," with the result that it not only greatly reduced handling and loading costs at Rock Island and handling and unloading costs at aluminum and steel plants and foundries receiving shipments, but emphatically created additional customer good will.

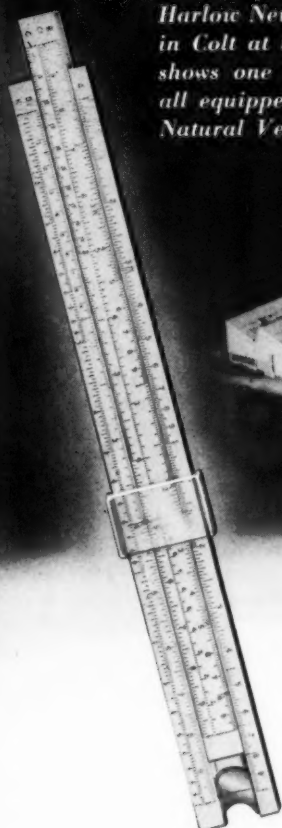
Up until less than three years ago, the heavy metallurgical alloys were stored and shipped in bulk. This meant not only large handling expense at both the shipping and receiving ends, but also that alloys of different compositions could not be shipped in the same car without considerable difficulty and taking of precautions to prevent their mixing.

While much ferro-silicon used in steel production still is shipped in large quantities in bulk, a large portion of it and most silicon metal are "packaged" in wirebound pallet bins.

Acceptance of the metals in "packages" has been so great that one official of the Keokuk Electro-Metals



Harlowe New Town, England, brought in Colt at the planning stage. Photo shows one of the 44 factories . . . all equipped with the Colt System of Natural Ventilation.



## How to ventilate a building with a slide rule . . .



Controlling air movement within a building is an exact science, requiring scientific instruments, a slide rule and the special kind of "know-how" that Colt has acquired in more than 28,000 installations throughout the world.

Developed in England during the war to combat fuel and power shortage, the Colt System of Natural Ventilation has proved equal in performance to a mechanical system

. . . and without wiring, motors, noise, ducts, and utility bills! Investigate how you can put Colt to work in an existing building or one still on the drawing board!

### THE **COLT** SYSTEM OF NATURAL VENTILATION



### **COLT** VENTILATION OF AMERICA, INC.

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Available to you Without Cost or Obligation:

- **FREE TECHNICAL MANUAL**  
giving full details of the Colt System and equipment used.
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A thorough survey of your premises and a report complete with schemes and equipment. Write, wire or call today!

• LOW INSTALLATION COST • NO MAINTENANCE NECESSARY • MAXIMUM EFFICIENCY • STOCKS AVAILABLE IN LOS ANGELES  
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April 1957 — WESTERN INDUSTRY





**SPECIAL RACK-FITTED CARS**, called DF (Damage-Free) Loaders, are provided by Great Northern Railroad, with bins resting on steel supporting bars. "Mixed cars" can now be shipped containing number of different sizes and grades of alloys with no danger of mixing.

Co says: "Customers now demand 'packaging'!"

A pallet bin consists only of a one-piece wirebound mat that is made of 5/16-in. container plywood and is folded to form the four sides of the container, and a heavy base of one-

inch flooring on 4 x 4 in. runners that is attached when the mat is folded and closed with wire-loop fasteners. An assembled bin is 48 in. tall by 35 x 33 in. It weighs between 75 and 90 lb., yet is packed with 2,240 lb. of silicon metal or a ton of ferro-

silicon metal.

When finely crushed metal is to be packed, the bin is lined with heavy paper to prevent spillage. Material from two to twelve inches in size, however, is packed without liners.

### Three loading methods

Metal is placed in the wirebound pallets in three different ways—by hand when hand-sorting of the finished alloy is required, direct from a conveyor leading from production, or from storage bins by scoop truck. Regardless of the method of packing, exactly 2,240 lb. of silicon metal is put into a container. The receiver thus can more easily keep track of inventory and more precisely control dispensing of different compositions of silicon metal alloys in his production of aluminum pigs.

At the Rock Island plant, the heavily packed pallet bins are handled by fork lift trucks and by a unique device consisting of a heavy steel frame that is slipped beneath a bin and lifted by hoist. The fork lifts carry the packed bins into freight cars during loading while the other device is used to lift bins onto flat bed trucks and loading platforms.

Two shifts of three men each load a car, one man driving the fork-lift truck and the other two hand-scoop-

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THESE ARE IMPORTANT DATES TO YOU IF YOU ARE . . .

- Responsible for the efficient operation of Industrial Plant, Retail Establishment, Office Building or Apartment House . . .
- A motel or hotel owner or operator
- A restaurant owner or operator
- A contractor, builder, architect or engineer
- Homeowner interested in renovating or building

During these days you will have an opportunity to see on display all the latest equipment in the air conditioning, heating, ventilating or refrigeration field.

At special conference sessions you will learn how proper equipment and installation can actually help you to increase your income potential.

### PLAN NOW TO ATTEND WESTERN AIR CONDITIONING, HEATING, VENTILATING AND REFRIGERATION EXHIBIT & CONFERENCE

SPONSORED BY WESTERN AIR CONDITIONING INDUSTRIES ASSOCIATION

SHRINE EXPOSITION HALL

700 W. 32nd Street, Los Angeles, California

Saturday, Sunday and Monday, May 4, 5, 6  
Restricted to trade only

Tuesday and Wednesday, May 7 & 8  
Homeowners will be invited

For further details or exhibit information, contact  
Fred J. Tabery, Exhibit Manager, 3443 So. Hill Street, Los Angeles 7, Calif. RIchmond 9-1091



now this is

# Visibility!



## ...with **MONOMAST® UPRIGHT** ...available only on **HYSTER TRUCKS**

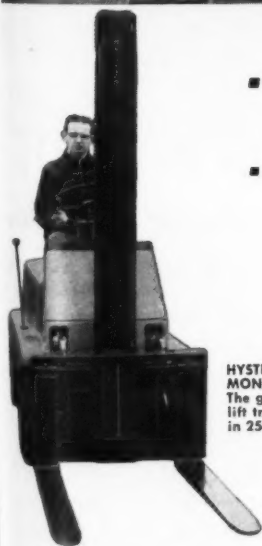
A lift truck operator has to *see* what he is doing to work efficiently.  
*The better he can see, the more work he can do in a day.*

With the "Monomast" Upright, the operator always has full view of the forks and load. Safety and maneuverability are greatly increased. Operator fatigue is reduced.

"Monomast" *panoramic visibility* means faster approach, more accurate placing of loads, less package damage—*far more tons moved per hour.*

Call us today for full information, or a demonstration.

Available on All Hyster® Lift Trucks Through 4000 Lbs. Capacity



**HYSTER  
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The greatest basic  
lift truck advance  
in 25 years



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**HYSTER COMPANY**  
2425 So. Garfield Ave.  
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**HYSTER SALES COMPANY**  
2105 S. E. 7th Ave.  
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BELmont 4-6471

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See Directory listing page 133



ing the metal out of storage bins onto the lifting conveyor that dumps it into the containers.

Silicon metal is produced by the Keokuk Electro-Metals Co. in more than a dozen different sizes and grades to meet customers' demands. Since "packaging" was adopted, it is now possible to load a car with wirebound pallet bins containing many different sizes and grades with no danger of them becoming mixed.

#### Good for storage, too

The Rock Island smelter itself stores much of its silicon metal in large storage bins, but it also maintains an inventory of ready-to-ship material packed in the wirebound bins.

Because the structurally strong bins can be stacked safely three-high when packed with silicon metal, inventory control is simplified for receivers and alloys of different sizes and grades can be segregated from each other.

Car unloading by customers has been speeded by the adoption of "packaging" and the nuisance and expense of cleaning cars have been eliminated. Cars usually are unloaded by fork-lift trucks that carry the bins directly to storage.

At aluminum smelters, customers report, the silicon metal alloy is more conveniently placed near the furnace for use than is similar alloy in bulk. At steel mills, particularly, the wirebound container itself sometimes is dumped into the furnace along with its precisely-weighted contents! This

eliminates the need to empty the pallet bin and has no effect upon the smelting process.

#### Double as "tote" boxes

Often, customers have reported, empty wirebound pallet bins, which are intended for one-way trips and are carried freight-free by railroads, are re-used as storage containers or as "tote" boxes.

The Rock Island plant of the Keokuk Electric-Metals Co., whose headquarters are at Keokuk, Iowa, ships its products to all major aluminum producers throughout the United States and to steel mills all over the country. Naturally, a good portion of its products go to Western aluminum smelters and steel mills.

SAN FRANCISCO  
157 13th St.  
Phone MArket 1-2255

## F. SOMERS PETERSON CO.

LOS ANGELES  
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Phone Richmond 9-6151

#### CENTRALIZED LUBRICATION SYSTEMS

The Farval Corp.\*

#### COUNTING DEVICES—Mechanical, Electrical

Veeder-Root, Inc.

#### CONVEYORS—TUBULAR and BUCKET

Hapman Conveyors, Inc.\*

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#### DEHYDRATION (Dry Air) EQUIPMENT

Kahn and Company, Inc.

#### FLEXIBLE COUPLINGS—"Amerigear" and "American" Flexible Coupling Division—

Zurn Industries, Inc.

#### FLEXIBLE METAL HOSE and TUBING

The American Brass Co.—

American Metal Hose Div.

#### FLEXIBLE SHAFTING—POWER DRIVES

Elliott Mfg. Co.

#### HEAVY DUTY REVERSIBLE RATCHET WRENCHES

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#### PUSH-PULL and REMOTE CONTROL ASSEMBLIES

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#### MONITORING and CONTROL SYSTEMS

#### SEQUENTIAL RECORDERS & PRINTERS

Taller & Cooper, Inc.

#### WORM GEAR SPEED REDUCERS

#### VARIABLE SPEED DRIVES

The Cleveland Worm & Gear Co.\*

\*Northern California Only

*For Economy...  
specify Elliott*



Where you have relative motion between power source and driven unit, you'll find it to your advantage to specify an Elliott flexible shaft for production economy and a more compact machine. It's a quality component, as dependable as the machine you build. It eliminates mechanical linkages, simplifies assembly to two easy connections. Elliott flexible shaft delivers high torque with minimum mechanical losses.

Two new technical bulletins are available to give you the preliminary information needed to apply Elliott flexible shaft. Write for them today. A letter to Elliott is assured of a quick answer.

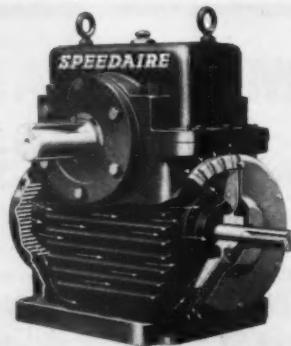
B. W.

**Elliott** MANUFACTURING COMPANY

539 Prospect Street  
Binghamton, N. Y.

## SPEEDAIRE WORM GEAR DRIVE

Saves Space, Saves Weight, Saves Money



• This fan-cooled worm gear drive delivers up to double the horsepower of standard worm units of equal frame size. It saves weight, space, money.

Speedaire design moves air at high velocities to increase rate of heat dissipation. This and other modifications give Cleveland's Speedaire worm gear speed reducer a much greater load-carrying capacity. As a result, a Speedaire is capable of doing the job of a much larger conventional unit. Catalog 400 gives detailed design information and typical applications. Write for free copy today.

**CLEVELAND WORM GEAR  
Speed Reducers**



## VEEDER-ROOT Quick-Reset Counter

saves time-speeds work

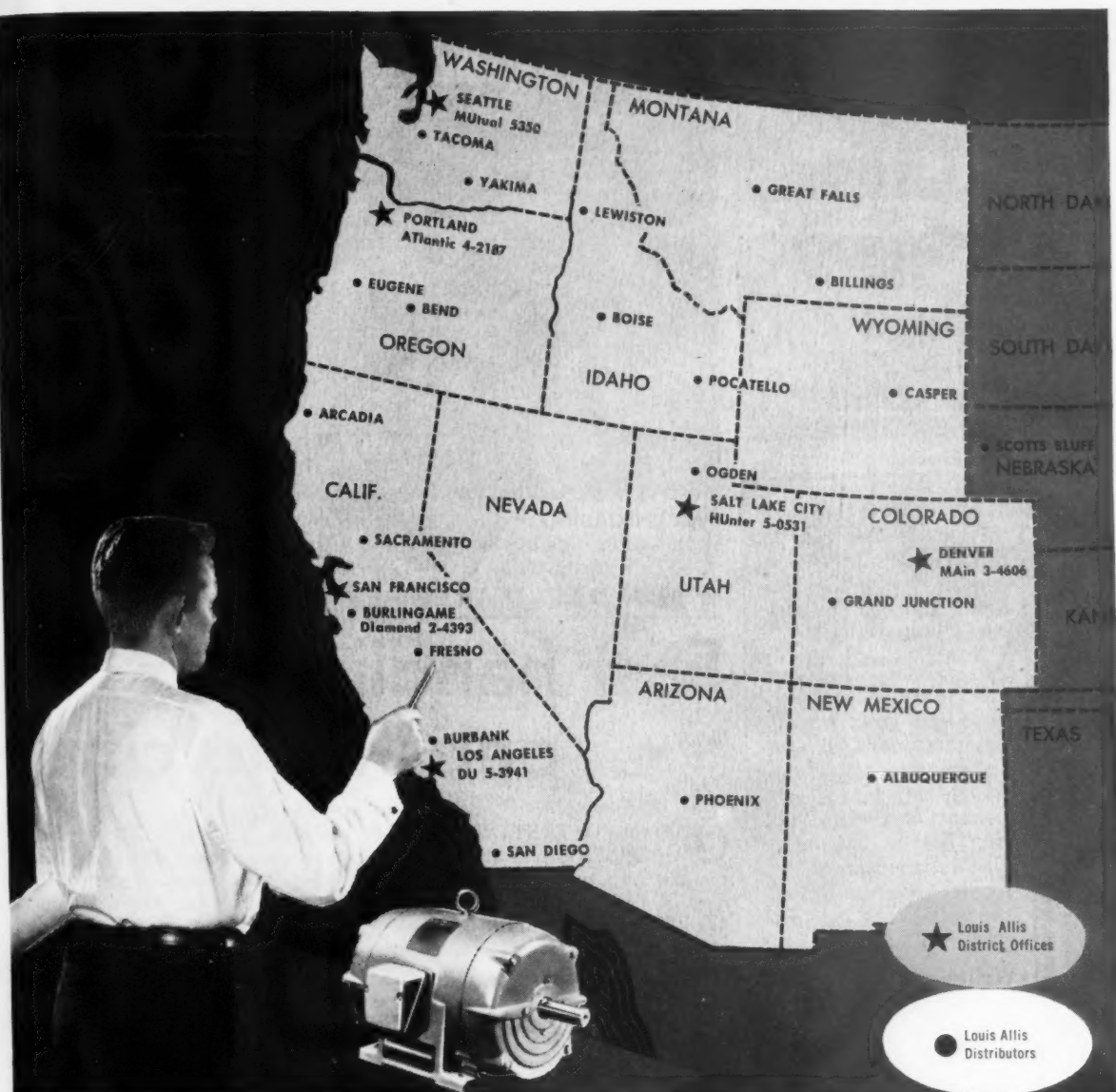
Where time consumed in re-setting is at a premium . . . on short machine-runs, inspection, military equipment and other applications . . . this time-tested Quick-Reset Ratchet Counter is exactly the time-saving device you need. Just press the easy-acting lever on the right side . . . all 4 figures reset instantly to zeros. This compact counter is now available from stock.

... for more details, circle No. 57

... for more details, circle No. 58  
See Directory listing page 124

... for more details, circle No. 59  
WESTERN INDUSTRY — April 1957





## Wherever you are in the west...

### Louis Allis motor engineers are ready to serve you.

A call or letter to one of these nearby Louis Allis district offices brings the know-how of a highly trained engineer to bear on your electric motor problems.

Member of an efficient organization devoted *exclusively* to the manufacture of electric motors, gearmotors, and adjustable speed drives, your Louis Allis engineer is familiar with your on-the-spot, day-to-day problems.

Why not call him today for qualified recommendations based on years of successful experience? A partial list of Louis Allis products on which he can assist you are:

- |                              |                                    |
|------------------------------|------------------------------------|
| Open drip-proof motors       | Adjustable speed drives (AC or DC) |
| Explosion-proof motors       | Rapid-reversing motors             |
| Gearmotors                   | Self-cleaning motors               |
| Special motors               | High-frequency power supplies      |
| Synchronous induction motors | DC motors and generators           |

Standard motors are in stock at Seattle, San Francisco, and Los Angeles. Pump drives include the close-coupled, vertical hollow shaft and vertical solid shaft. Consult the yellow pages of your local telephone directory under "Electric Motors" for the address and telephone number of your nearest Louis Allis office.

## LOUIS ALLIS

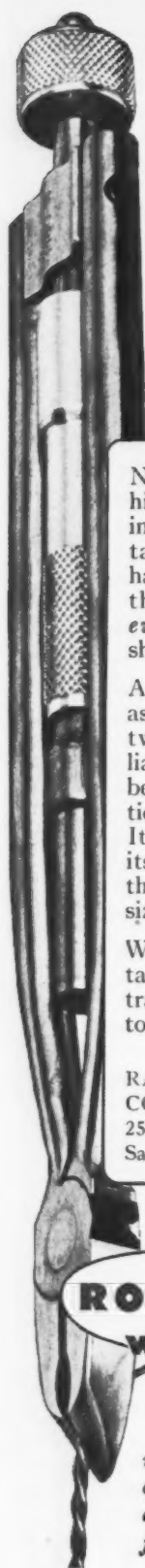
MANUFACTURER OF ELECTRIC MOTORS AND ADJUSTABLE SPEED DRIVES

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April 1957 — WESTERN INDUSTRY

81





## 3 in 1 Labor Saver

PLIER  
CUTTER  
TWISTER

Now, from a fabulous history in the aircraft industry, comes a spectacularly performing hand tool, so versatile that it should be in *every* maintenance shop.

And — if your product assembly calls for wire twisting — this brilliantly engineered tool belongs on the production line in quantity. It can save more than its list price of \$18.50 the very first day. Two sizes — 9" or 12".

Write for complete details in our fully illustrated brochure. Write today.

RALPH C. ROBINSON  
CO., Dept. I, Box 3494,  
2516 Crosby Way, North  
Sacramento 15, California.

**ROBINSON**  
wire twister

*with the  
exclusive  
diagonal  
jaw design*

... for more details, circle No. 61



**BULK UNLOADING** of citrus fruit as it is delivered from the field is speeded up by special side dumping delivery trucks.

### ★ M-H PACEMAKER

## Fast handling of perishable citrus

ONE IMPORTANT Western industry that is constantly looking for new ways to step up the pace of flow of materials is the perishable food processing industry. Systems designed to process farmers' and fruit growers' products and get them into the hands of consumers must be fast — or farmer and process plant both lose money.

Arizona Citrus Growers of Phoenix is a good example of what sharp use of conveyors and other material handling devices can do. Affiliated with

Sunkist, this organization handles fruit grown on 2,700 acres of irrigated desert land. Years of experience enabled the plant's operators to design a system for their relatively new plant that will pack up to 16 carloads—or 302 tons—of perishable citrus fruit per day.

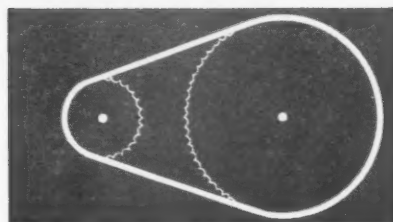
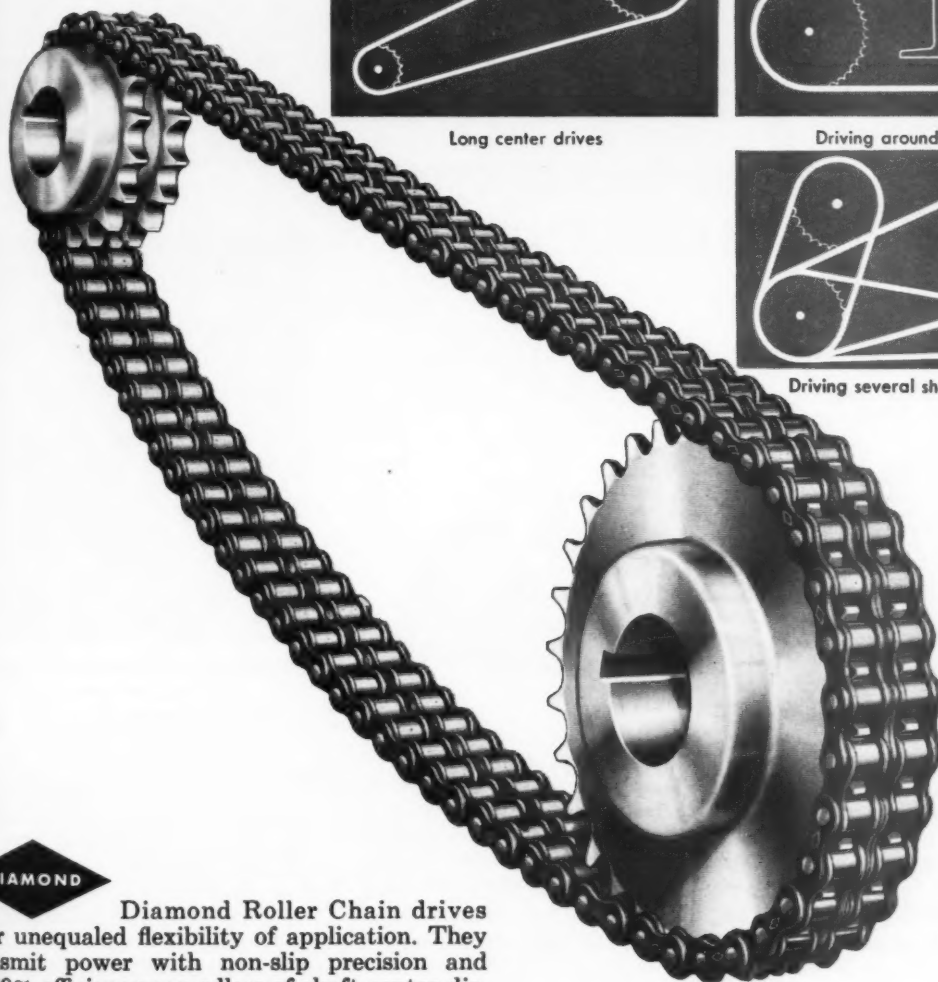
One big problem in attempting to operate a fast-moving packing set-up is a lack of skilled workers. Citrus picking in this area is a seasonal operation. It is difficult to obtain efficient workers when needed. However, in



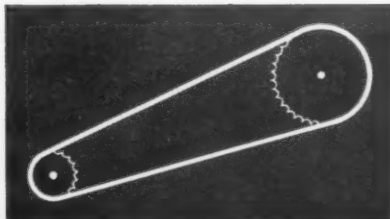
**ELECTRONICALLY COUNTED AND PACKED** oranges and grapefruits are not only handled faster, but they are packed more evenly and with greater care.



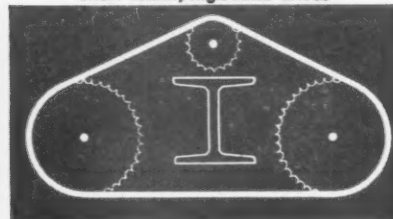
**VERSATILE DIAMOND CHAINS  
SOLVE MANY DRIVE PROBLEMS  
AT LOW COST...**



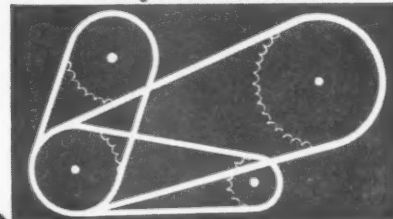
Short center, high ratio drives



Long center drives



Driving around obstructions



Driving several shafts from one source

**DIAMOND**

Diamond Roller Chain drives offer unequalled flexibility of application. They transmit power with non-slip precision and 98-99% efficiency regardless of shaft center distances or speed ratios.

Obstacles in the drive path are easily avoided. Diamond Roller Chain's light weight and compactness allow lighter machinery construction, eliminate power consuming gear trains and the many shafts and bearings they require.

Diamond Engineers are available now to help you solve your drive problems. Write or call today.

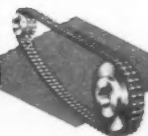
**DIAMOND CHAIN COMPANY, Inc.**

Dept. 606, 402 Kentucky Ave., Indianapolis 7, Indiana

Offices and Distributors in all Principal Cities

Please refer to the classified section of your local telephone directory under the heading CHAINS or CHAINS-ROLLER

**DIAMOND**



**ROLLER CHAINS**

**Where High Quality is Traditional**

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See Directory listing page 126

April 1957 — WESTERN INDUSTRY



the new plant, it is not at all unusual for fruit to be packed and in an outgoing rail car 30 min. from the time it was last seen on the tree.

Mechanization starts in the fields. Here the fruit is harvested from the trees into picking bags and placed on portable conveyors that load it into waiting trucks. When the trucks, which keep abreast of picking crews, are loaded with five to six tons of fruit, they are driven onto an inclined ramp at one side of the plant.

Through use of a power winch, the

fruit is lowered slowly from the side of each truck onto a wide conveyor or draper. There are two of these conveyors, side by side, to permit unloading of two trucks at once and to facilitate keeping growers' fruit separate. Use of this bulk handling system has resulted in a 40% savings for the plant and has eliminated box breakage and repair. Fewer workers are needed, thus providing a means of meeting the no-experienced-help problem.

The wide conveyors or drapers

carry the fruit to dry brushes, a waxer, a dryer and onto the grading table. The fruit is divided into four different grades here. From the grading table the fruit moves onto graduated rollers where commercial sizes are separated.

#### Next step: counting and packing

Then, the respective size graduations drop onto separate belts and are carried through electronic counters into cartons that have already been stamped with each fruit size. These electronic counters have saved 20% on packing cost. A vibrator keeps the cartons in motion while the fruit is dropping into them. This assures a uniform fruit pattern in the box and a solid pack.

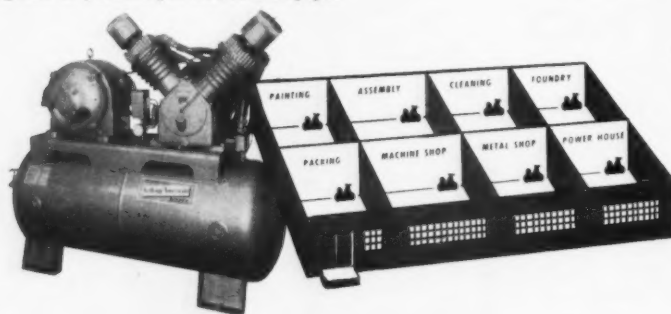
As each carton is filled with the correct amount of fruit, it is auto-



#### HOW TO STOP

### COMPRESSED AIR FRICTION IN LONG PIPE LINES

Air friction in long pipe lines costs money... in lost air volume and pressure... dissipated before performing any duty. It's one of the common faults of old-fashioned central source air systems—where friction losses may be as high as 47 pounds per 100 feet of pipe.



With KELLOGG-AMERICAN's "On-the-Spot" program of multiple small compressors, you compress air only to the pressures needed for each individual department's work. That means elimination of long pipe lines, a reduction of the number of pipe joints and outlets, and a reduction of power and operating costs. By decentralizing your compressed air system, your plant gains in flexibility, too—with never a danger of breakdown leaving the entire plant without air.

Survey your plant air system soon. Your Shields, Harper man will be happy to help you get the facts.

**FREE!** Compressor selector slide rule—automatically selects exact size needed to fit your air requirements—write today:



**SHIELDS,  
HARPER  
& CO.**

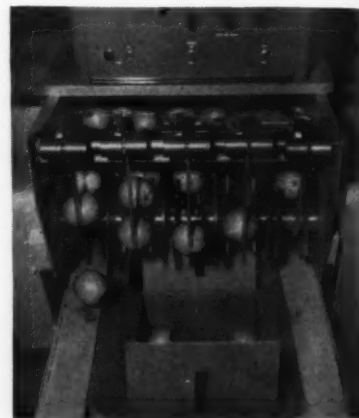
#### Division Offices & Warehouses:

5107 Broadway, Oakland  
2650 Leonis Blvd., Los Angeles  
403 N. W. 15th Ave., Portland  
416 Dexter Ave., Seattle

#### Sales Representatives:

San Francisco, Sacramento, Stockton, Fresno, San Jose, Chico, Santa Rosa, Santa Ana, Bakersfield, Glendale, Pasadena, San Diego, Santa Barbara, Hollywood, San Bernardino, Long Beach  
• Salem, Eugene • Everett, Spokane, Yakima, Tacoma, Walla Walla • Phoenix, Tucson.

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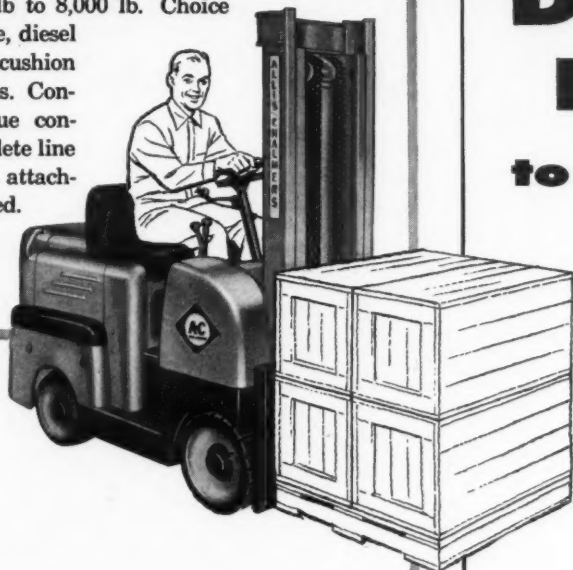
**FINGERS OF ELECTRONIC COUNTER**  
ease the citrus fruit into even layers in ready-and-waiting cartons.

matically moved onto a conveyor belt and an empty carton moves under the counter. Full cartons proceed via conveyors through a sealing machine that glues the top and bottom of the cartons in one operation.

Each fruit grower is credited with the number of cartons of each size and grade of fruit as it comes out of this machine. Slight breaks in the flow of fruit separate one grower's fruit from the next. After leaving the sealing machine the cartons are stacked by size and grade on pallets located along the conveyor system. No appreciable amount of fruit is warehoused in the plant; as pallets are filled, the fruit is loaded into waiting railroad cars or trucks. All of the equipment in this speedy system is powered by variable speed motors. Thus, the operation can be closely controlled and adjusted to meet any condition and insure effective performance.



**Fork Trucks** — Over half a hundred models and sizes with outstanding operating and service advantages. Capacities range from 2,000 lb to 8,000 lb. Choice of fuels — gasoline, diesel or LP gas. Solid, cushion and pneumatic tires. Conventional or torque converter drive. Complete line of interchangeable attachments to fit the need.



**CHORE BOY Platform Trucks** — 2,000 and 3,500-lb capacities. Ideal for shuttle and inter-department delivery, pickup and package distribution, other handling. Large deck holds a variety of material. Is suitable for carrying personnel or for mounting welder, air compressor, other equipment.

CHORE BOY is an Allis-Chalmers trademark.



**SHOP MULE Industrial Tractors** — thirty gasoline and diesel models with drawbar pulls up to 12,000 lb. Compact, highly maneuverable, these tractors are designed for towing or pushing wheeled vehicles, moving heavy machinery — are also used for maintenance work and operating auxiliary equipment.



**HERE'S**

# Diversified Handling

**to meet your needs**

Whether you want to lift material, carry it or pull it, here is Allis-Chalmers equipment to do the job with real savings in time and money. Each unit is suited to a specific type of handling. Each is built "from the drawing board up" to deliver top performance.

Ask your Allis-Chalmers Material Handling Dealer to show you how these machines will fit your particular handling requirements.

See these examples of  
**Allis-Chalmers**  
**Engineering in Action**

... in action against handling  
and maintenance costs.

... for more details, circle No. 64  
See Directory listing page 118

MATERIAL HANDLING DEPARTMENT  
BUDA DIVISION, MILWAUKEE 1, WISCONSIN



# ALLIS-CHALMERS

BH-30



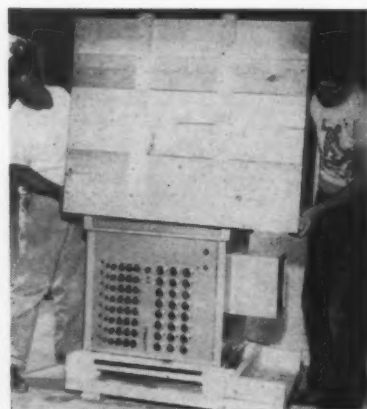
HOW DELICATE KNOB-STUDDED UNIT  
IS PACKAGED—IN PICTURE SEQUENCE



**AFTER BOLTING** machine to its base, workers nail extension wood blocks to crate to create a void where square fitting, containing dust filter and blower, must be protected.



**CORNER BLOCKS** of American Latex "Moltex" are fitted to protect machine's finish against marring and provide cushion against effects of vibration.



**PREFABRICATED CRATE** is then lowered over the machine. Crate is made of 1 x 12-in. Engleman spruce fastened with No. 8 cement-coated nails.

FINAL STEPS PICTURED ON  
OTHER ARTICLE PAGES...

# Shipping losses beat by smart packaging

★ **M-H PACEMAKER** now ships delicate electronic equipment world-wide with negligible damage loss.

**I**N ONE YEAR, shipping losses for a prominent Los Angeles designer and manufacturer of electronic machinery amounted to more than \$40,000. Yet, less than a year later, annual shipping losses dropped to less than \$500, even though the firm's business volume had more than doubled.

The answer was simply the application of proper (and pacemaker) package engineering. Here's the story of how it was worked out by Benson-Lehner Corp.

## The package engineering problem

Benson-Lehner makes data processing machines costing from \$5,000 to \$35,000 and designed to process and analyze a tremendous range of data from guided missile telemetering records to plotting rainwaves or preparing substrata maps in geophysical and seismographic investigation. The machines are utilized for extreme flexibility of operation.

The firm manufactures four basic units. Two of these produce data, the other two translate this data into usable information. While not as complex as the larger computers, such as UNIVAC, their extraordinarily fragile and complicated electromechanical circuits and components are sensitive to shock, vibration, and similar factors, thus complicating package engineering.

The firm's BOSCAR (Ballistic Oscillograph Analog Reader) and OSCAR (Oscillograph Analog Reader) units along with their electroplotter and decimal converter companion equipment do not lend themselves to easy packaging for shipment. For example, both the electroplotter and decimal converter are studded with control knobs and switches, the former having nearly 50 such controls on its vertical face. Before the packaging problem was solved, Benson-Leh-

ner was experiencing no delays in production because of it, but the extremely high shipping losses were creating an untenable situation.

While the packaging problem of electronic fragility coupled with the delicate mechanical balance of movable precision components is occasionally encountered in other electronic equipment, Benson-Lehner packaging was complicated by an added factor. The firm's data reduction machines are designed for office, rather than shop installation, and for operation by young women who feed into the machines data provided by engineering personnel. Since the nature of the devices requires a certain level of alert concentration on the part of the operators, the machines were designed with the comfort, convenience, and general attitude of the operator in mind to lessen the chance of error.

## Many complicating factors

To accomplish this, the cases of the equipment have been made of relatively fragile fiberglass or wood painted a wedgewood blue and are supported on slender functional legs that create a psychological impression on the mind of the operator that she is working with conventional modern office equipment. The lightweight construction was mandatory since the various machines were designed to be shipped by air to the company's customers located throughout the world.

Original packages were of wood with conventional interior and exterior bracing. Fabrication was by plant carpenters with little technical packaging training. Cushioning materials also were of conventional design—Kraft paper-wrapped excelsior, wedged between the machine and the crate, corrugated paperboard taped directly to the equipment. Minor damage resulting from this type of





*Case in point* Tiger Brand Specialist Hazen White (left) answers a wire rope question asked by Hopper Machine Works' Design Engineer, Hampton Lee. This Bakersfield, California, firm manufactures the famous Hopper Hoist—an oil well servicing and drilling rig. The company has used Tiger Brand Wire Rope on their inside cranes for eight years.

## Count on the man from **TIGER BRAND**...

You won't find his name on your payroll, but "the man from Tiger Brand" can be counted on like one of your own specialists, for these men *are* specialists...skilled in helping you get longer and more profitable service from your wire rope and rope-using equipment.

*First in quality and service*

## USS **TIGER BRAND** Wire Rope

United States Steel Corporation • Columbia-Geneva Steel Division

120 Montgomery Street, San Francisco 6

...with fully staffed service facilities in 10 other western cities

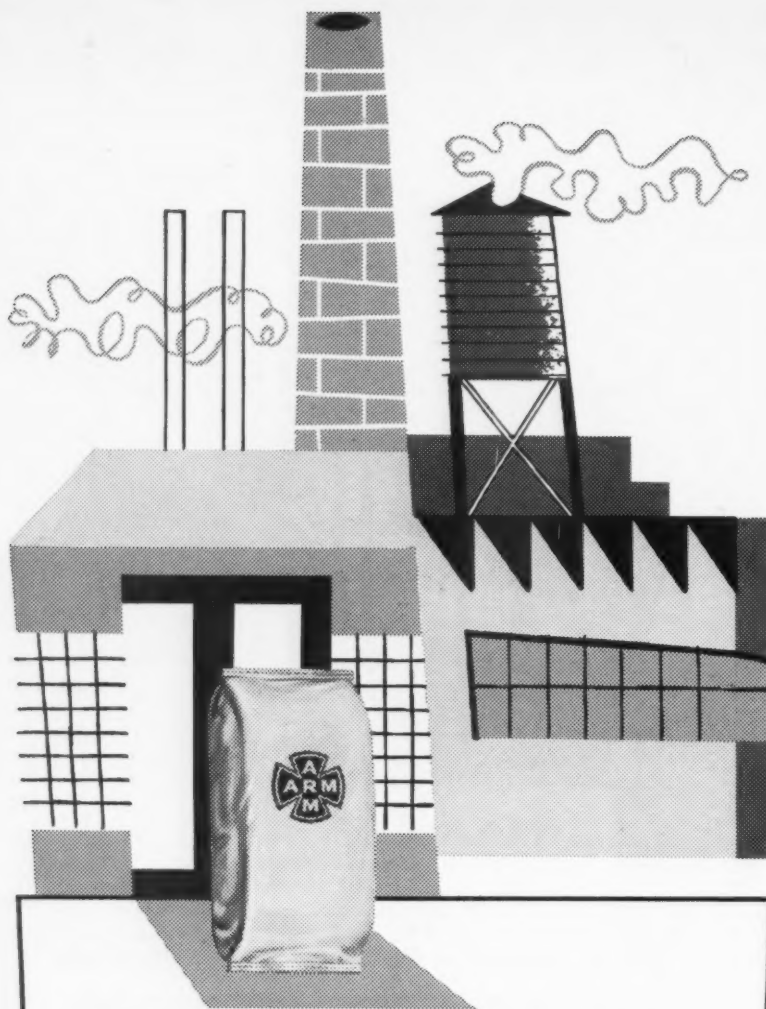
Next time you have a wire rope problem, get in touch with "the man from Tiger Brand." You will find him ready and willing to be of service. No obligation, of course.



**UNITED STATES STEEL**

... for more details, circle No. 65 on Reader Service Postcard  
See Directory listing page 125





## RIGHT AT YOUR FRONT DOOR and RIGHT IN YOUR PLANT

From the largest producer with the most complete line of phosphates  
and photo-pure chemicals in the West.

ARMOFOS (tripoly) • TRISODIUM PHOSPHATE

DISODIUM PHOSPHATE • DRI-TRI (anhyd. tsp)

TETRASODIUM PYROPHOSPHATE • MONOSODIUM PHOSPHATE

PHOSPHORIC ACID • SODIUM ACID PYROPHOSPHATE

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POTASSIUM PYROPHOSPHATES

Write for descriptive folder.

ANTHRA-  
**QUESTEX**

ETHYLENE DIAMINE  
TETRA ACETIC ACID  
AND DERIVATIVES

# Maas

A. R. MAAS CHEMICAL CO.

Division of Victor Chemical Works  
4570 Ardine Street • South Gate, Calif.



**SECURE BRACING** for the crate is provided by wooden blocks at points where voids occur.

packaging even before the crate left the plant were finish scratches, broken or crushed glass screens, bent X-Y arms, etc. Although minor, this type of damage still resulted in complaints, customer ill-will and a lessening of the reputation for quality.

More serious damage occurred during shipment when interior components broke loose and battered the circuits of the machine itself. One piece of equipment was almost completely ruined when it was dropped from a forklift causing \$1,000 worth of damage.

Benson-Lehner executives attempted to solve the problem in two ways. The first was to disassemble the machines and crate and cushion each individual component. The service engineering problems involved in re-assembling and adjusting the critical circuits proved too expensive and time consuming. When this procedure proved unworkable, members of the firm's engineering staff were assigned the task of designing a proper package. This also proved unworkable because they were continually pulled off the project to work on more important considerations of circuit design.

### Contract packager retained

At this point, the company retained the services of a contract packaging firm, Specification Packaging Engineering Corp. of North Hollywood, Calif. Engineers of SPEC Packaging worked with Benson-Lehner in changing not only packaging designs but also packaging procedures and the entire flow of packaging operations. SPEC Packaging trucks now pick up the machinery from the Benson-Lehner plant, deliver it to the SPEC facilities in North Hollywood where the entire packaging operation is completed, and the machinery is then shipped directly from this point. As a contract packager, SPEC Packaging

... for more details, circle No. 66 on Reader Service Postcard



# STUCK FOR A TRUCK?

... let this "walkie-size"  
rider truck do it!



If you are stuck with one of those in-between jobs that demands a *small rider* type truck for pallet handling, MOTO-TRUC's "Ride-A-Man" pallet trucks are the answer.

"Ride-A-Man" trucks give you all the convenience, safety and ruggedness of much larger rider trucks without sacrificing the compactness and maneuverability of a walkie.

Only slightly larger than a walkie, "Ride-A-Man" trucks provide a roomy operator compartment fully equipped with effortless wheel steering, foot brake and dead-man control. Electric power assures low operating and maintenance costs.

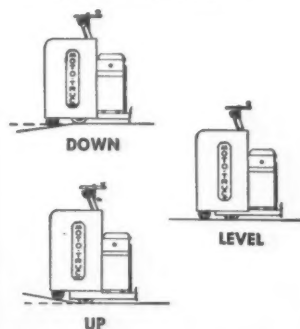


Write for Bulletin 56R. Get full details on the complete line of "Ride-A-Man" trucks.

## EXCLUSIVE

### "FREE FLOATING" ACTION

The sketches show how Moto-Truc's exclusive "free floating" action prevents pitch and roll caused by uneven floors and high speed turns. The wide spread caster wheels stabilize the truck. The operator's compartment floats up and down to keep both casters and drive wheel in constant contact with the floor. The drive wheel carries the load while the casters stabilize the truck.



Largest exclusive manufacturers of "Walkies" and Ride-A-Man Trucks



## The MOTO-TRUC Co.

Representatives in Principal Cities

1963 E. 59th St. Cleveland 3, Ohio

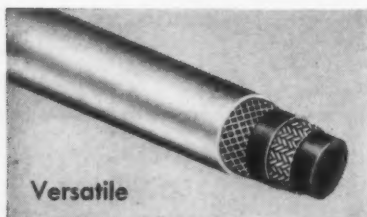
Pallet ... Platform ... Hi-Lift Truck

... for more details, circle No. 67 on Reader Service Postcard  
See Directory listing page 139



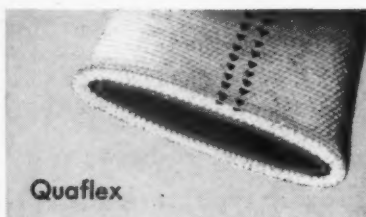
# Industrial HOSE?

**Your Quaker Rubber & Quaker Pioneer distributor has these — and other rugged hoses in stock and ready to go!**



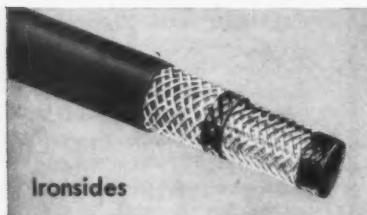
**Versatile**

**AIR.** For heavy duty work. Lightweight, highly flexible. Resists weather damage and abrasion. Non-porous tube of oil resistant rubber compound. Rugged Neoprene cover.



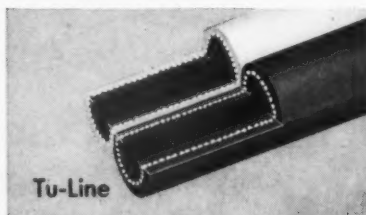
**Quaflex**

**FIRE.** For long service in interior fire protection. Resilient, flat-folding. Flexible, crack-resistant. Leak-proof tube bonded to strong single jacket cover.



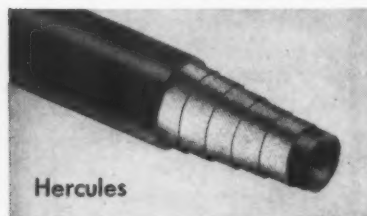
**Ironsides**

**STEAM.** For general steam-handling jobs. Strong, light, flexible, kink-proof. Steel wire and glass reinforcing for extra safety. Resists high pressures and temperatures up to 368°F.



**Tu-Line**

**WELDING.** Especially effective on portable welding dollies. Kink-free. Resists abrasion and welding gases. Two lines securely bonded together form a single safe hose unit.



**Hercules**

**WATER.** For general water service at medium pressures. Light weight, easy to handle. Non-porous tube resists water absorption. Rugged, slow-aging cover resists abrasion.

**Save time and money. Call your Quaker Rubber-Quaker Pioneer distributor first, when you need hose or other industrial rubber products.**

**For further information, write to: H. K. Porter Company, Inc., Quaker Rubber Division, Philadelphia 24, Pennsylvania, or Pittsburg, California.**

**HKP** **QUAKER RUBBER DIVISION**  
**H. K. PORTER COMPANY, INC.**

... for more details, circle No. 68 on Reader Service Postcard  
See Directory listing page 142



**WATERPROOF PAPER** is stapled to top of crate. For overseas shipment, machine itself is covered with moisture and vapor proof barrier scrim, packed with desiccant, heat sealed, and strapped with cotton webbing.

assumes all of the responsibility from pick-up to delivery.

The new packaging that was developed is similar to that called for in military specification MIL-P-116B, Method II-A. The machines, some of which weigh as much as 700 lb., are bolted to a wooden base to which are affixed special skids. Before the crate is placed over the machine, it is fitted with eight specially-designed cushioning blocks. These are made either of Moltex, a shredded and remolded foam rubber manufactured by the American Latex Products Corp. of Hawthorne, Calif., or the company's newer Stafoam, a polyurethane foamed plastic that cannot be abraded, is easily fabricated or contoured, and is heat, vermin, acid, alkali, and solvent proof. These blocks, which measure 5 x 5 x 4 in., provide about three inches clearance between the mechanism and the crate.

## Special attention at critical points

The processing equipment is then opened and the three critical tubes removed, wrapped in Kimpac, and placed in 200-lb. test corrugated cartons, which are placed within voids in the machine itself and strapped to interior framing with cotton webbing.

All moving parts are completely immobilized with cotton webbing or pressure sensitive tape. Special attention is given to the critical X-Y arms which are protected against motion and vibration with the tape and with Tuflex, which also is used to pack two other components sensitive to vibration.

The crate itself is constructed separately of 1 x 12-in. Engleman spruce fastened with No. 8 cement-coated nails. When the machine is to be shipped overseas, it is completely covered with a sheet of moisture and vapor proof barrier scrim packed with desiccant, heat sealed, and strapped.

**WESTERN INDUSTRY — April 1957**





**THE FINAL STEP**—top is nailed to crate and it is steel-strapped, ready to travel without damage to any part of the U. S.

Packaged in this manner, the machine may be uncrated at its destination and be placed in perfect working order by engineers in less than one hour.

By coincidence, this package was also dropped from a forklift almost under identical conditions. It suffered only \$40 damage as opposed to the \$1,000 damage when packed by previous methods.

Thus once again, packaging has kept pace in the West with the most advanced design, proving that it can be as critical a commodity as the equipment it protects. As a result, Benson-Lehner now is shipping more than \$3,000,000 worth of equipment per year with negligible shipping loss.

#### For pacemaker ideas in

**RACKS, BINS, SHELVING  
FOR STORAGE**

**STEEL STRAPPING  
EQUIPMENT**

**CONVEYOR BELTS AND  
IDLERS**

**... see this month's  
listing of best available  
manuals on these mate-  
rial handling and pack-  
aging subjects, page  
105 of this issue. The  
manuals are yours for  
the asking ... a special  
WI service.**

## Forged Steel Fittings

Now  
protected  
with...



new rustproof coating

That attractive color you see on our forged carbon steel fittings is a new synthetic coating that effectively protects the fittings against corrosion in stock and in service. The coating completely covers the fittings—inside and outside, thus protecting threads and sockets, as well as external surfaces.

If you are going to paint your piping system for color coding or other reasons, the new coating serves as an excellent base for paint. No objectionable rust or scale to scour off before painting.

All W-S forged carbon steel fittings, in both screw-end and socket-welding types, are now available with the new blue rustproof coating.

Remember the blue color. It labels the fitting a W-S Quality Product.

Send for your copy of Forged Steel Fittings Catalog A-3-56

Write to W-S Fittings Division, H. K. Porter Company, Inc., P.O. Box 95, Roselle, N. J.

**HKP** **W-S FITTINGS DIVISION**  
**H. K. PORTER COMPANY, INC.**

... for more details, circle No. 69 on Reader Service Postcard







#### AIRCO HELMETS:

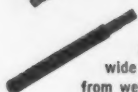
A complete line of welding helmets and face shields including the new hard hat equipped with "helmet blocks" for attachment of welding helmet.



**AIRCO HOLDERS:** Available in 25 models, jaw and screw types, ranging from 200 ampere holders to the heavy duty model for handling 700 amperes.



**AIRCO GLOVES:** The same quality that makes other Airco accessories the best value you can buy extends to welders' gloves and leather sleeves.



**AIRCO CABLE AND CONNECTIONS:** Unrivalled dependability, long life and flexibility. Sizes from 4 to 4/0, for wide range of amperages at varying distances from welding machine. Make sure of good connections with Airco ground clamps, cable splicers, Quik-Trik cable connectors and cable lugs.



**AIRCO GOGGLES:** For gas welding or cutting. Precision made, they afford excellent ventilation with maximum eye protection.



**AIRCO CYLINDER TRUCKS:** Make your welding and cutting outfit easily portable with an Airco two-wheel hand truck. Strong, rigid, welded steel frame; broad steel platform. Five models offer wheel sizes and styles for every type of surface.



**AIRCO SAFETY HATS AND CAPS:** Lightweight, molded of fiber glass and polyester resins to give maximum protection. Available in seven standard colors. See the new hard hats equipped with "helmet blocks" for the attachment of welding goggles or coverspecs.



**AIRCO TWIN-HOSE:** Two lines of hose molded into a single, light flexible unit. Close, tight braid permits thicker rubber cover for greater wear resistance.

# GAS or ARC

*it's Airco quality for  
superior results*



**YOU NAME IT** — Airco has it . . . oxygen, acetylene, torches, tips, regulators . . . sparklighters, soapstones, tip cleaners, circle cutting attachments, carrying cases, chipping hampers, brushes . . . all at low prices. Call your Authorized Airco Dealer or nearest Airco office for your arc or gas requirements.



## AIR REDUCTION PACIFIC COMPANY

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Gases . . . Carbide . . . Gas Welding  
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Air Reduction Pacific Company is a division of Air Reduction Company, Incorporated. Principal products of other divisions include: PURECO — carbon dioxide — gaseous, liquid, solid ("DRY-ICE") • OHIO — medical gases and hospital equipment • NATIONAL CARBIDE — pipeline acetylene and calcium carbide • AIRCO — acetylenic chemicals • COLTON — polyvinyl-acetates, — alcohols, and other synthetic resins.

. . . for more details, circle No. 70 on Reader Service Postcard  
WESTERN INDUSTRY — April 1957





**CONDENSED BRICK STORAGE** with each row representing a car load is just one outstanding feature in this . . .

## Smart outdoor storage scheme

★ **M-H PACEMAKER** because "back-row static stock" problem has been eliminated, product flow smoothed out and handling bottlenecks chased right out of this Colorado brick plant storage yard.

**A** FAMILIAR WEAKNESS in the large-volume handling of products tiered in storage yards is that the stuff in back rows continues to grow older while fresh stuff in front rows gets the automatic nod in making shipments to customers. Another chronic weakness is the often excessive travel distances required by lift trucks and other handling units in roaming the storage yard to pick up products in filling a specific order.

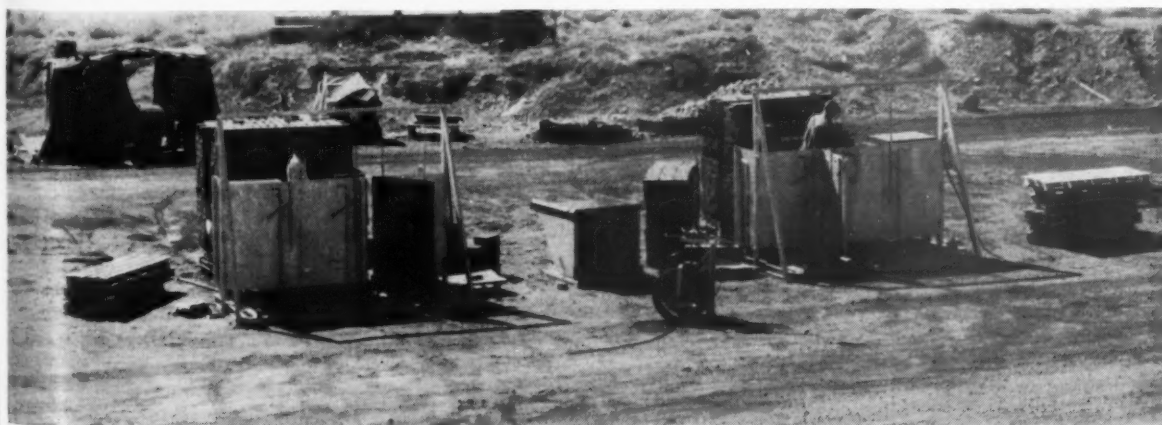
With a series of pacemaker ideas,

these and other problems have been solved by Robinson Brick & Tile Co. of Denver, Colo. The results: time per circuit from production to storage has been cut substantially, there are now no "aging stock" back rows, and service to waiting trucks or freight cars has been sharply improved. Here's how the firm did it, with the project starting just this last November.

Smooth, uninterrupted flow of brick and tile from kiln to the final order point was the chief objective set by the

firm in the reorganization of sorting storage, and loading methods. Robinson is one of the largest producers of brick and tile in the Mountain States area.

Handling improvements within the yard followed close on the heels of a similar program aimed at eliminating breakage and customer dissatisfaction in rail car shipping of tile products during 1955-1956. So much success was achieved in the discard of traditional carloading methods and in de-



**BRICK STACKS ARE BUILT** in sorting jigs and steel-strapped before fork lift trucks carry them away to storage yard.



velopment of special methods of tile protection that the Denver firm received a national-competition award.

In launching a searching analysis of the flow from the kiln unloading docks to the final storage yards where brick and tile are loaded into truck or freight car, the firm had several clear cut goals in mind. First was doing away with "bottlenecks" which wasted time when the desired order could not be found at once. Second, the firm was anxious to be sure that older hacks of brick in the back row

would not continue to grow older while freshly fired brick in the front row was being shipped to customers. Finally, it was desired to cut down on the distances traveled by Towmotor fork lifts, both to eliminate wasted time and to increase safety.

The situation as it existed showed ware being stored at three locations in the yard, including one area at the southeast corner, another triangular area immediately in front of the production building which houses the kilns, and a more remote section in

the extreme front of Robinson's 17-acre property on Denver's Santa Fe Drive. The main storage yard was the triangular area nearest the entrance to the brickyard and fronting on one of two spurs serving the Robinson plant.

Here, cubed and steel-strapped brick was stored in rows from 100 to 120 ft. long, and upwards of 65 ft. wide, on a diagonal slanting away from the sorting area on the south side of the plant. The problem as easily determined from a study of the storage area was manifold. First, the lift trucks shuttling from the nine all-steel jigs in the sorting area (where brick delivered from the kilns is steel strapped) were traveling long distances to the west end of the storage area, and moving indiscriminately up and down the roadways between the stacks of ware, subject to mishaps which could result in either spillage of brick or possible injury to personnel.



"ONE WAY STREETS" in this storage yard insure safety and complete circulation of the yard by fork truck drivers.

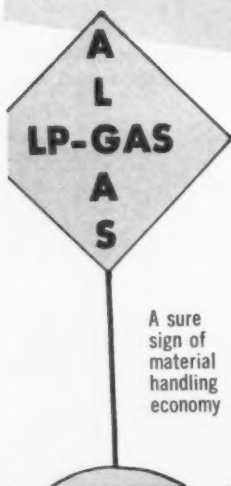
In typical used-car-lot fashion, older brick in the back row was often ignored in filling of orders, to the point that often brick which had been cubed only a few hours and stacked in the storage area was shipped to fill an order, while older hacks of brick in the less convenient rear rows sat untouched. Since Robinson Brick & Tile Co. has long prided itself on a reputation for shipping only select brick and tile, the accumulation of rust on steel straps and dusty accumulation on the bricks from the back row didn't fit into the picture.

A corollary problem was that of "lost" brick or tile fork-lifted out to the outlying storage area when space became short in the main storage area. Too often, specific hacks of brick transported to one of these areas, but carried on the inventory books, could



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LP-Gas Conversion & Gas Plant Equipment

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Important savings in material handling costs are being made with LP-Gas conversions. Actual tests prove that engine life is increased from three to four times. Lubricating oil reduced as much as 85%. Engine wear and maintenance costs cut to a minimum. Fume-free operation. ALGAS combines all these advantages with advanced engineering to lead the field in industrial truck conversions that provide trouble-free performance and proven economy. Write today for our informative bulletin, "New, low cost, load power for industrial trucks." Ask for bulletin FL-100.

**AMERICAN LIQUID GAS CORPORATION**  
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April 1957



**STARRETT**

A Famous Marwedel  
Brand since 1883

The Palace Hotel photographed 40 years ago, when Marwedel had already been representing Starrett for 33 years

**NEW STARRETT MAGNETIC BASE INDICATOR HOLDER  
ELIMINATES CLAMPS...ATTACHES TO ANY STEEL SURFACE!**

Here is an indicator holder with a powerful, permanent magnet-type base that holds firmly when placed horizontally, vertically or upside down. Magnetic force can be turned on or off just by pushing a button. It shortens set-up time on any job requiring a dial indicator. It is another fine instrument manufactured by Starrett.

The complete Starrett line has been distributed by C. W. Marwedel & Company for 73 years. It is another of our more than 100 famous brands of tools and industrial supplies. For the finest in service and supplies, call Marwedel!

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**TOOLS  
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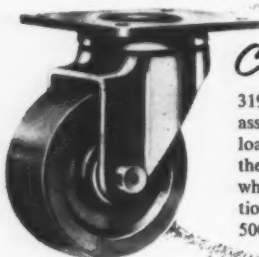
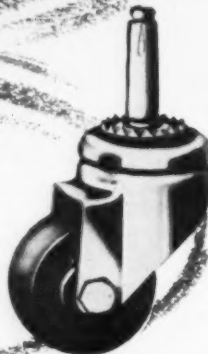


## Job Rated

...for load capacities  
...for floor conditions  
...for easy rolling

### *Casters for Furniture*

267 kinds, sizes and styles of quiet, easy rolling, durable casters are available. Wide selection of stems and mountings for every kind of metal and wood construction. Load capacities range from 75 to 200 lbs., per caster. Hard rubber or cushion tread wheels protect floors.

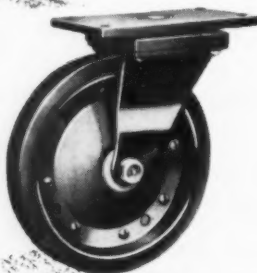


### *Casters for Equipment*

319 kinds and sizes of swivel and rigid casters assure smooth rolling and long life under heavy loads. You can select stems and top plates to suit the construction of your equipment. A variety of wheel types are available for every floor condition. Load capacities per caster range from 75 to 500 lbs.

### *Casters for Machinery*

132 kinds and sizes of swivel and rigid models to give you a complete selection of rugged, trouble-free, easy rolling casters. Steel, aluminum and plastic wheels with hard or cushion treads. Pneumatic and semi-pneumatic tires available on some models. Load capacities range from 220 to 1500 lbs., per caster.



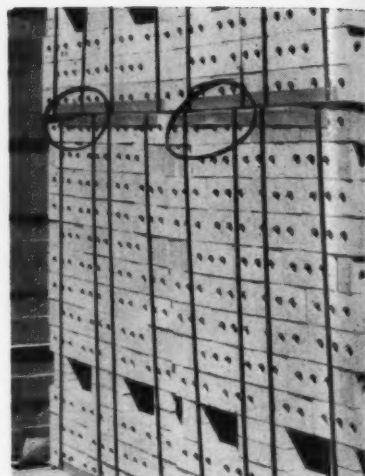
The World's  
Largest  
Selection of  
Casters &  
Wheels

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1458 Different  Kinds, Types and Sizes

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See Directory listing page 125



**CUBES ARE DATED BY SORTERS** by chinograph pencil mark at top or bottom of cubes (see circles).

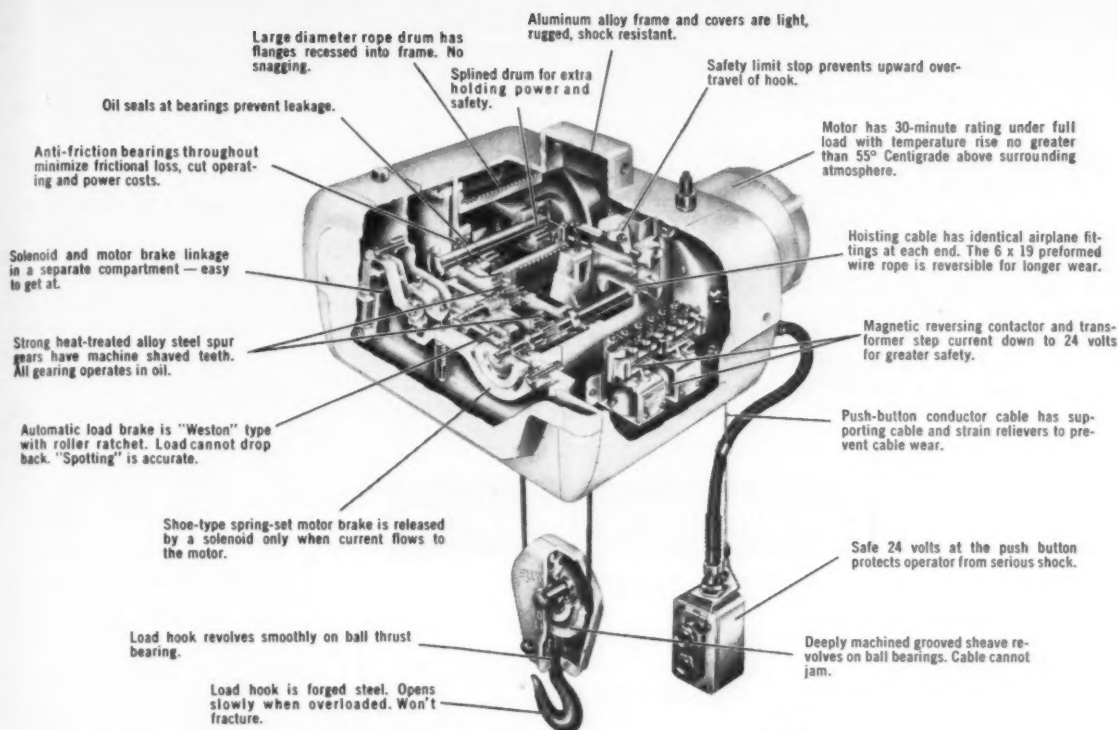
not be found when wanted. When a fork lift was dispatched to pick up 1,000 buff Normans supposedly stored in a particular section of one of the remote areas, it wasn't unusual for the operator to search row after row to locate the order, and even then he might bring back a dark Norman brick instead of the light buff on the order... simply because nobody knew precisely where the wanted brick had been deposited. This, of course, represented a different consideration than the physical handling involved in the main storage area, but one which impinged on efficiency with a direct relationship.

The answer has been a combination of physical changes in the storage area, a switch in yard management which has deputized assistant yard foremen to care for specific areas, and introduction of new shortcuts and methods. Since November 1956, steady experimentation has crystallized in a system of flow handling which has added greater work production per employee involved, insured even turnover of brick in turn, and scotched the "lost stock" problem completely.

As the initial step, the overall size of the storage yard in front of the production area, which has loading facilities for both trucks and freight cars, has been sharply cut. Instead of rows 100 to 120 ft. long and 65 ft. or more wide, shorter rows only 32 ft. wide are stacked in the area, each 32-ft. section across the stack equivalent to one average boxcar load.

The "back row" has disappeared and safety advanced by creating a system of one-way roadways through the brick stacks. This means that each forklift carrying 1,000 bricks now





## TOP QUALITY SPELLS TOP PERFORMANCE FOR YOU

This is the Series "600" 'Load Lifter', the tough wire rope electric hoist with a well-earned reputation for speeding production. The ½-ton size lifts at 30 FPM at the push of a button. Only 24 volts at the push button means a big plus in safety.

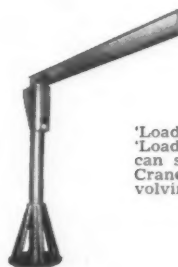
The "600" has few functional parts and has anti-friction bearings throughout. That means less wear and lower power and operating costs — economy! Strong construction is combined with lightness for stamina and easy movement on the I-beam. Your service man won't see much of this hoist, yet every part is easily accessible by removing covers while the hoist is in the air!

Check the construction of the Series "600" 'Load Lifter'. Compare its quality, performance and low headroom with other makes. You will be convinced that here is the best value in its class. ½ and 1-ton capacities available in lug or hook suspension or with plain or motor-driven trolley. Your "Shaw-Box" Distributor will gladly give you full details — or write us for Bulletin 408.



Series "600" 'Load Lifter' with push-type trolley equipped with ball-bearing wheels for smooth, easy travel even on curves. Trolley adjustable to fit various I-beam sizes.

Series "600" 'Load Lifter' with motor-driven trolley that travels at 100 FPM — saves time and energy — smooths out production flow. Trolley available separately for "600" hoists already in service.



'Load Lifter' Jib Cranes. A "600" 'Load Lifter' Hoist on this crane can serve a 550 sq. ft. area. Crane is self-supported, full revolving. Capacities to 5 tons.



# 'Load Lifter'® ELECTRIC HOISTS

**MANNING, MAXWELL & MOORE, INC.**  
SHAW-BOX CRANE & HOIST DIVISION  
392 West Broadway • Muskegon, Michigan

Builders of "SHAW-BOX" and 'LOAD LIFTER' Cranes, 'BUDGIT' and 'LOAD LIFTER' Hoists and other lifting specialties. Other Divisions produce 'ASHCROFT' Gauges, 'HANCOCK' Valves, 'CONSOLIDATED' Safety and Relief Valves, 'AMERICAN' and 'AMERICAN-MICROSEN' Industrial Instruments, and Aircraft Products.

In Canada: Manning, Maxwell & Moore of Canada, Ltd., Avenue Road, Galt, Ontario.

... for more details, circle No. 74 on Reader Service Postcard  
See Directory listing page 137



swings around the broad side of the triangle and returns up a center road back to the sorting area. In doing so, each fork lift passes between what was formerly the back row, the center row, and back up between the center and front row. Standard "one way" signs of the street variety warn against wrong-direction entry, and small stop signs on the aisles between stacks, cutting across the roadways, warn against danger. One-way traffic not only moves faster, but the system also insures that all gaps in the stockpiles are filled evenly, as well as insuring that there is no out-of-the-way row to be ignored in filling orders.

Loads of one thousand bricks are brought by one Towmotor fork lift from the unloading docks at the south end of the kilns, to the nine sorting jigs which are versatile enough to strap 75 to 100 brick packages. As these move into the storage inventory, they are "labeled" by the sorting jig operator, using a grease pencil on a paperboard strip at the side of the cube, with date and his initials. Brick is now delivered from the shorter stacks at one end and filled from the other, using all three rows, with the date on each cube assigning its proper rotation. Since one order is enough to remove an entire row 32 ft. wide,

this space is immediately filled in from the sorting jigs as it is emptied.

All rows are available at all times for order filling, and the restacking process shifts back and forth as orders are filled.

#### Tile gets special handling too

Robco also manufactures structural glazed tile in 12 colors and 117 different shapes. This operation involves highly technical skills and extremely rigid controls. The product is made to customer order.

Each pallet load of glazed tile is tagged at the sorting area with the customer name and order number; then it is assigned a specific row in the storage area. Each row—which holds one carload of material—is marked with the order number.

When shipping date arrives, Robco maintains its prompt shipping reputation by being able to quickly transfer the tile to the box car by lift truck.

The problem of order filling and stacking in the two remote storage yards has been solved by subdividing each yard into smaller sections and placing an area yardman in complete charge of each. There are five such areas of responsibility at present; each area yardman is being held accountable to the yard foreman for the placement and removal of every cube of brick stored in his domain. Not only does he supervise the stacking of the brick, but he also keeps a record which gives the exact location and date of stacking on every cube of brick or tile delivered to his care. Then, there are no irritating problems involved in finding the order after it has been sold.

Physical reshaping of the main triangular yard made possible the opening up of a more direct route to the other two storage sections, eliminating the many turns and longer distances traveled by fork lift in the past. Time per circuit from the sorting jigs into the storage rows has been cut substantially, there is no "aging stock" back row, and service to the waiting truck or freight car has been sharply improved.

Another key to the success of this pacemaker material handling system is rigid control. Large maps of the entire stock area are posted under glass at strategic points in the yard. All fork lift operators are supplied with manuals listing instructions for the proper care of his equipment. These manuals also cover procedure for handling his vehicle and finished ware as well as maps of the yard layout.

## NEWEST LP-GAS CARBURETION DEVELOPMENT

**BEAM**  
Complete Factory Assembled  
**LP-GAS  
CONVERSIONS**

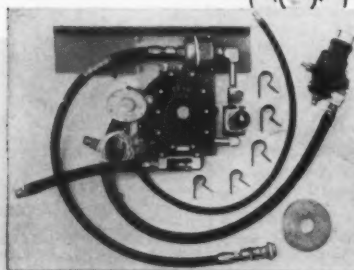
Manufactured to all  
Requirements of  
UNDERWRITERS' LABORATORIES  
FACTORY MUTUAL INSURANCE  
FACTORY INSURANCE ASSOCIATION

INSTALLED ✓

ADJUSTED ✓

OPERATING ✓

in less than 2 hours per unit!



Assemblies come complete with Mounting Brackets pre-fit to specified fork lift trucks, hoses cut to proper lengths and clearly marked for speedy, simple installation.

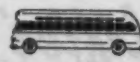
### The Cleanest Carburetion in the World

Eliminates health-destroying carbon monoxide "hang-over". Makes engines last 4 times longer. Cuts oil consumption 66%. No Carbon or sludge deposits. No crankcase oil dilution.



**So Simple  
To Install!**

Just bolt the brackets, connect the hoses and install the fuel tank—in less than two hours.



**BEAM PRODUCTS MFG. CO.**

Formerly THE PARKDALE CO.

BUTANE-PROPANE CARBURETION

3040 ROSSLIN ST. LOS ANGELES 21, CALIF.

Circle 5-5791

REGULATORS • CARBURETORS • SOLINOID VALVES

... for more details, circle No. 75 on Reader Service Postcard  
See Directory listing page 121



# This is the "DINOSAUR"

Mobile Zipper Elevator for swift, economical and gentle handling of catalyst materials

by **STEPHENS-ADAMSON**

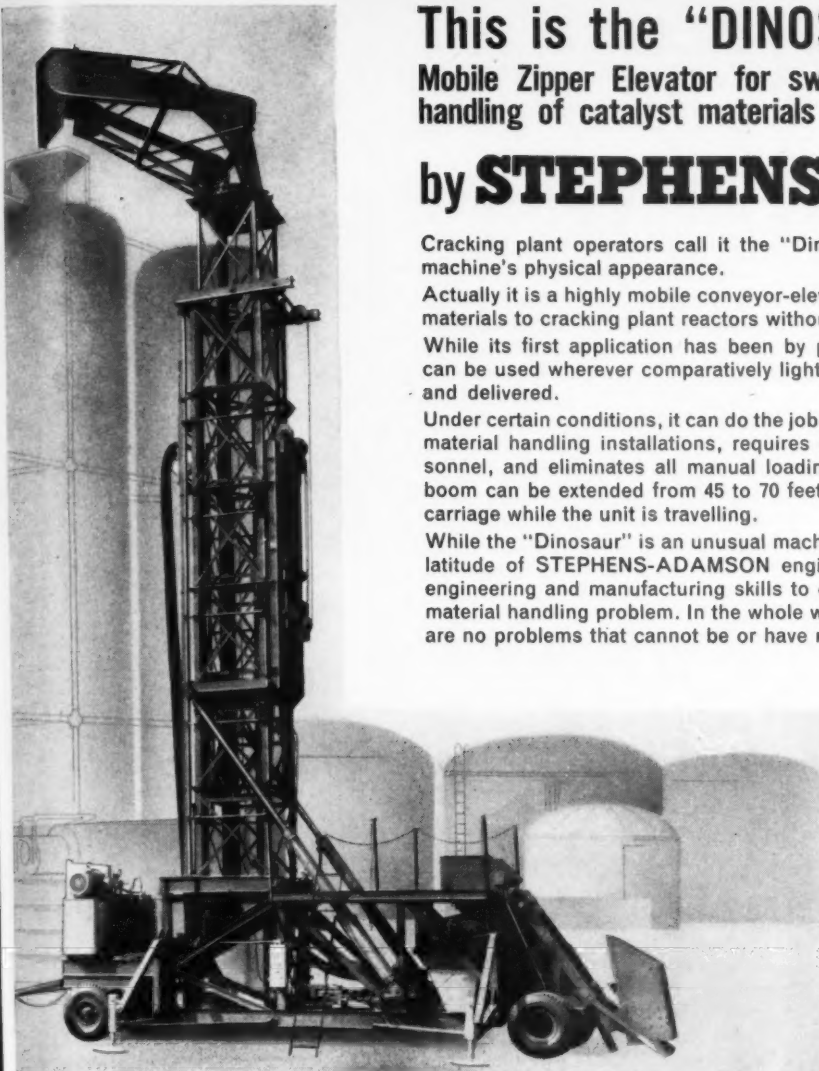
Cracking plant operators call it the "Dinosaur," because of this remarkable machine's physical appearance.

Actually it is a highly mobile conveyor-elevator unit designed to charge catalyst materials to cracking plant reactors without degradation.

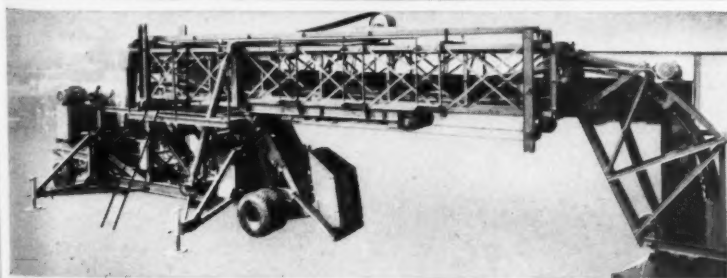
While its first application has been by petroleum refineries, the "Dinosaur" can be used wherever comparatively light, dry bulk materials must be elevated and delivered.

Under certain conditions, it can do the job required of far more costly permanent material handling installations, requires only a fraction of the operating personnel, and eliminates all manual loading above grade level. Its telescoping boom can be extended from 45 to 70 feet vertically and can be stowed on the carriage while the unit is travelling.

While the "Dinosaur" is an unusual machine it is also indicative of the creative latitude of STEPHENS-ADAMSON engineers. It is the result of combining engineering and manufacturing skills to create the most sensible answer to a material handling problem. In the whole world of bulk material conveying, there are no problems that cannot be or have not been solved the S-A way.



Catalyst material is carried to reactor without degradation by zipper conveyor belt. The belt opens to receive material—"unzips" at discharge point.



The "Dinosaur" can be stowed in horizontal position and the entire unit moved easily and conveniently from station to

station. Material is loaded mechanically by means of a barrel dumper which completes a cycle every 45 seconds.



Power source required for the motor starter and power plant is a 440 volt, 3 phase, 60 cycle plug with sufficient conductor size to handle 35 H.P.

S-A manufactures a wide range of material handling products in three complete plants in U. S. and Canada.

Belt Conveyors	Headshaft Holdbacks
Belt, Pan & Plate Feeders	Grizzlies & Screens
Ship Loading Boom Conveyors	Centrifugal Pilers
Stacking Conveyors	Bin Gates & Tunnel Gates
Storage & Reclaiming Systems	Car Pullers & Spotters
"Natural Frequency" Vibrating Conveyors	Bucket Elevators
REDLER Conveyor-Elevators	Skip Hoists
ZIPPER Conveyor-Elevators	SEALMASTER Ball Bearing Units
Conveyor Belt Cleaners	



**STEPHENS-ADAMSON MFG. CO.**

85 RIDGEWAY AVENUE, AURORA, ILLINOIS  
LOS ANGELES, CALIFORNIA  
BELLEVILLE, ONTARIO

Write for a bulletin on any of the above products.

**SALES ENGINEERS ARE LOCATED IN ALL MAJOR CITY AREAS TO SERVE YOU**

... for more details, circle No. 76 on Reader Service Postcard  
See Directory listing page 145



# TUG-BAR

handles the load easier!  
...saves time and money!

Read what Slick Airways, Inc. says:

"... we are very satisfied with the performance of our new Western Gear Tug-Bars... one man can handle heavy bulky crates easily in cramped quarters..."

Charles F. Dworshak  
Director, Sales & Traffic

Red Arrow Freight Lines, Inc. says:

"... Tug-Bar can go inside the truck and move, load or unload pieces weighing 6,000 to 7,000 lbs.... one man can load or unload his truck without aid.... Tug-Bar pays for itself..."

H. B. Dudley  
General Terminal Manager



Tug-Bar does the hard work! Motor driven wheels do the pushing and pulling. Ideal for warehouse and general freight handling and consolidating. Light, portable, weighs only 110 lbs. Optional load lips for individual requirements. Standard units in 110V AC or 24V DC. Write for money-saving information. Address Western Gear Corporation of Texas, 117 No. Palmer St., Houston 3, Texas.

"The difference is reliability" • Since 1888

**WESTERN GEAR**  
Corporation  
ENGINEERS AND MANUFACTURERS

PLANTS AT LYNWOOD, PASADENA, BELMONT,  
SAN FRANCISCO (CALIF.), SEATTLE AND HOUSTON—  
REPRESENTATIVES IN PRINCIPAL CITIES

... for more details, circle No. 77  
See Directory listing page 149



**DOUBLE-DUTY LIFT TRUCKS** tow three carts of in-process knitted goods and serve as conventional lift trucks at the same time.

## ★ M-H PACEMAKER

# On-street, in-plant lift-tow truck system

**H**OW DO YOU KEEP UP with the transit pace set by a plant that covers four and a half city blocks and houses an operation that demands movement of partially finished goods from building to building? Finished and semi-finished wearing apparel produced at Jantzen, Inc.—one of the world's largest sportswear manufacturers—must be transported from building to building over three city streets which dissect the company's Portland, Ore., international headquarters and plant.

A fair volume of automobile traffic and large numbers of Jantzen employees and other pedestrians add to the problem. Although the streets are level and surfaced, frequent rains and occasional snow present problems of traction and safety. Inter-plant materials movement often involves a six-block journey; the average trip is four blocks long.

Jantzen's answer to the dilemma is smart use of fork lift trucks and specially built bundle carts. But an earlier experiment involved use of



**TOW BAR** on lift truck is easily dropped into place by the operator.



**FULLY LOADED** trailer train starts its journey to Jantzen's shipping set-up.





**IT'S LIKE A FEVER**, with one good idea leading to another. Jantzen also puts lift trucks to work clearing snow away.

specialized tractor towing units mounted on hard tires to pull the loaded carts. This set-up proved unsatisfactory due to slow speeds of the tractors and high maintenance costs caused by vehicle wear and tear caused by the rough streets.

Present equipment consists of two Hyster lift trucks equipped with special coupling hooks. One truck has a standard two mast upright and the other truck is equipped with a Hyster Monomast upright for increased visibility in street and plant travel.

Both units pull three loaded bundle carts each trip. Though the towing capacity of these units could pull a longer train, the company has decided on a maximum train of three carts because of safety considerations.

Inside and outside plant doors are protected from excessive damage by opening plates and bumper guards which run the full length of the trucks. Some doors are equipped with automatic opening devices, which are actuated by the trucks, as they pass over rubber hose circuits laid on the ground.

The hitches connecting the units together were developed by Jantzen maintenance people and permit proper following of the towed units. Each unit is attached by hand.

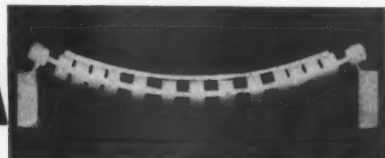
The two lift trucks are also used in the conventional manner. Often, while towing the three-trailer loads, other materials are transported on the trucks' forks. And warehousing of palletized and other goods is speeded up also by the lift trucks. Thus, Jantzen gets double duty from this equipment.

Both units are equipped with LP-Gas, because of inside operations. Obnoxious fume elimination is particularly important, due to the number of women employees at Jantzen.

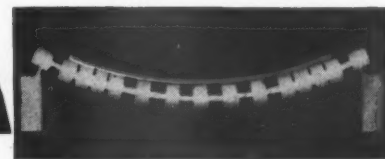


*We've been asked...*

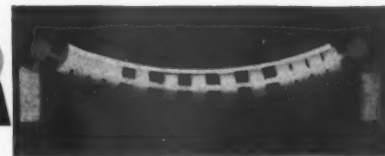
## "WHAT IS THE JOY LIMBEROLLER BELT CONVEYOR IDLER?"



Radically different from all other idlers, the Limberoller is a flexible steel cable suspended between two bearings . . . neoprene discs are molded to the cable . . . forming a single roll idler which turns on its own axis. This imparts a flexing action which is self-cleaning . . . prevents material buildup, a source of trouble with conventional idlers.



Supports the belt throughout its entire width . . . doesn't have the unsupported gaps left between the rolls like conventional idlers. Increases belt life 20% and more. Materials don't "bump along" from idler to idler, either.



Two bearings, instead of six. They are up out of the dirt zone, not hiding down under the belt. Joy has never replaced a single bearing due to normal failure. Heard enough? There's more . . . get the whole story from Joy Manufacturing Company, Oliver Building, Pittsburgh 22, Pa. In Canada: Joy Manufacturing Company (Canada) Limited, Galt, Ontario.

# JOY

WAW L8831-100 Write for free bulletin 160-17

## EQUIPMENT FOR ALL INDUSTRY

CONVEYORS • AIR AND GAS COMPRESSORS • FANS • BLOWERS • ROCK DRILLS • BLAST HOLE DRILLS  
HOISTS • ELECTRIC PLUGS, RECEPTACLES AND POWER DISTRIBUTION SYSTEMS

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- San Francisco 3, California . . . . . 1155 Harrison Street
- El Paso, Texas . . . . . 1022 Wyoming Street
- Denver 2, Colorado . . . . . 1626 Wazee Street
- Portland 9, Oregon . . . . . 1631 N. W. Thurman Street
- Salt Lake City 4, Utah . . . . . 998 South 6th West Street #1
- Seattle 1, Washington . . . . . 2411 Western Avenue
- Butte, Montana . . . . . 24 West Granite Street
- Kellogg, Idaho . . . . . 1 North Division Street

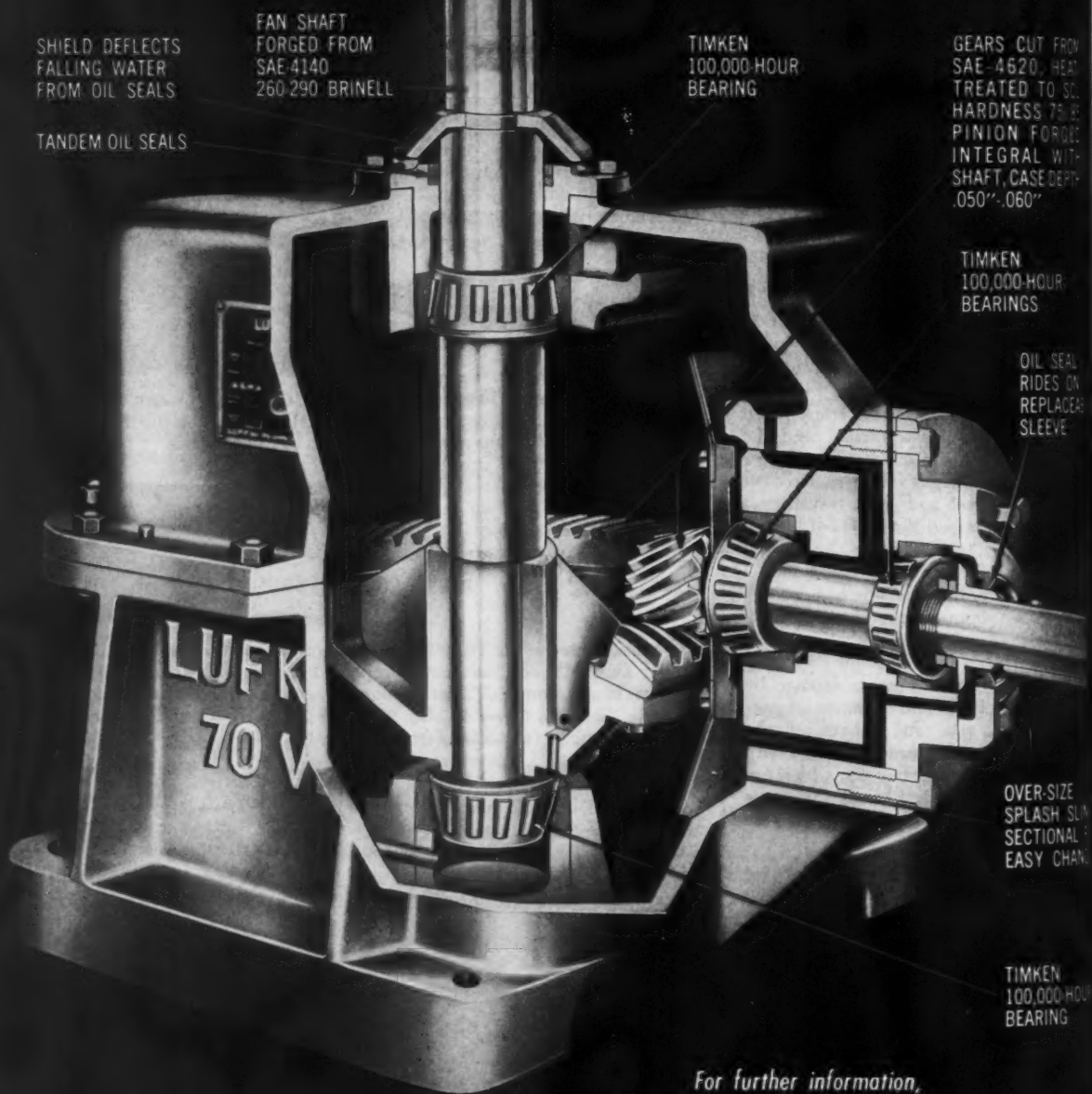
... for more details, circle No. 78 on Reader Service Postcard  
See Directory listing page 134



*Lufkin*

**spiral bevel gear**

**reducers for cooling  
tower fan drives**



SHIELD DEFLECTS  
FALLING WATER  
FROM OIL SEALS

TANDEM OIL SEALS

FAN SHAFT  
FORGED FROM  
SAE 4140  
260-290 BRINELL

TIMKEN  
100,000-HOUR  
BEARING

GEARS CUT FROM  
SAE-A620, HEAT  
TREATED TO SO  
HARDNESS 75 R  
PINION FORGE  
INTEGRAL WITH  
SHAFT, CASE DEPT.  
.050"-.060"

TIMKEN  
100,000-HOUR  
BEARINGS

OIL SEAL  
RIDES ON  
REPLACEABLE  
SLEEVE

OVER-SIZE  
SPLASH LIP  
SECTIONAL  
EASY CHANGE

TIMKEN  
100,000-HOUR  
BEARING

*For further information,  
write for our Cooling Tower Bulletins*

*Lufkin*

**FOUNDRY & MACHINE COMPANY  
LUFKIN, TEXAS**

Branch Sales and Service: Houston • Dallas • New York • Tulsa • Los Angeles • Seminole • Oklahoma City • Corpus Christi • Odessa  
Kilgore • Wichita Falls • Casper, Wyoming • Great Bend, Kansas • Effingham, Illinois • Duncan, Oklahoma  
Brookhaven, Mississippi • El Dorado, Arkansas

**ON THE WEST COAST, 5959 South Alameda, Los Angeles**



## Here is the automatic warehouse

... continued from page 47

help the operator determine speedily the group from which he will want to select the commodity. It takes an operator approximately one second to preset each item on an order into the computer control.

Many other safety features have been built into the machine to prevent errors. For example, once a "quantity selector" switch has been pressed, it is necessary to press the "commodity selector" switch before pressing another "quantity selector" switch. This feature prevents the operator from putting two quantities in and then pressing the commodity selector switch and obtaining an incorrect count.

Any time the operator makes an error in presetting the quantity or commodity switches, it is only necessary for him to press the error switch located in the lower right hand switch group. This action erases the previous portion of the order that had been incorrectly set into the computer.

## Bulk moves faster by the ton

... continued from page 53

beyond its angle of repose. The flour then flows freely into the blender.

The two FSP Pak-Dumpers actually serve four blenders. They are rail mounted and travel back and forth a distance of 40 ft. in front of the blenders. Bakeries utilizing in-plant pneumatic flour handling systems can dump directly into their systems by modifying hoppers with a rotary air lock at the bottom which will then feed the flour into the system.

While bins are dumping it takes only a minute for the operator to fold the previously emptied bin tube, remove the remaining strap, disassemble the ribs and place them with the pallet and the top cross pieces on the assembly racks placed in a handy spot nearby. The process of assembling the bins for return shipping consists simply of placing various bin parts on the racks. When a rack is full, some of the strapping used on the full bins is placed around the units, tensioned and sealed. The empty bin units closely approximate the size of the full bins; they are handled in the same manner and with the same equipment as the full bins.

When empty, the Bulk-Pak Bin reduces to only 8% of the volume of

the full bins. This means that with the dunnage, only one car of empties needs to be returned for every ten cars of full bins.

The bins are shipped on a transportation rate which is the lowest in the tariff for this classification of material. In addition, 30 lb. of each bin travels absolutely free of charge each way. This is the loaded portion of the bin assembly which the railroads have exempted from charge since pallets greatly facilitate loading and unloading and reduce damage.

## M-H face-lifts a "job shop"

... continued from page 49

duction lines. In many of these cases, swinging jib cranes are used which can be swung over either line to pick up parts for further processing, then return them to the line from which they came. This permits line flow production to proceed without interruption along both lines.

In overall perspective, the efforts to improve production efficiency at Drayer-Hanson have resulted in a blending of material handling and production operations to a point where it is difficult to determine where one leaves off and the other begins. The roller conveyors between machines, for instance, might be regarded as an extension of the production operation or as a part of material handling; the jib cranes which move parts temporarily from the flow line, but return them to continue onward, are serving the same dual purpose.

But with material handling cost figures showing a 60% reduction despite the fact that production has been increasing, how these various operation is regarded is a bit beside the point!

## Beginning on page 117

THE 42-PAGE WESTERN MATERIAL HANDLING & PACKAGING BUYERS' DIRECTORY

... the only directory published listing Western offices and Western distributors for all major manufacturers of handling equipment ... another WI special service.

GEAR FOR INDUSTRY  
**THE Lufkin LINE**  
OIL FIELD PUMPING UNITS

## A CABLE FROM ANKARA

Communique from our customers are always of utmost importance to Lufkin, but we realize of no particular interest to the rest of the world.



V. J. Fawcett

But, darned if we can be so casual as not to mention some of our morning mail, cables, etc. just received from the land of Mosques and Minarets—from a Biblical Land where stands lofty Mt. Ararat, best known of Turkish peaks, because Noah's Ark was beached there—and Turkey is fast becoming a modern land of industrialization, opening up development of her natural resources.

One of these resources is oil. And, as every oil man knows, where there's oil, there's Lufkin! And that's what the cable's about—naturally. Turkey's Ram Oilfield is Lufkin equipped. A personal inspection trip made last year revealed complete satisfaction by all members of Turkish Petroleum Corporation. Indeed, Lufkin is pleased to receive new orders for additional equipment reflecting the confidence of our Turkish friends.

Also, in the mail from Ankara, a letter from our friend Ferdi Ozmen, who said goodbye to the many friends he left behind in California, following a 3-year stay in Los Angeles with The Ralph M. Parsons Company as local representative for Turkish Petroleum Corporation. Ferdi tells of a new business venture in his home town, asks to be remembered to all. Our best wishes to you, Ferdi, and remember, the welcome mat is always out!

*V. J. Fawcett*

**Lufkin** FOUNDRY  
& MACHINE COMPANY

... for more details, circle No. 80

April 1957 — WESTERN INDUSTRY

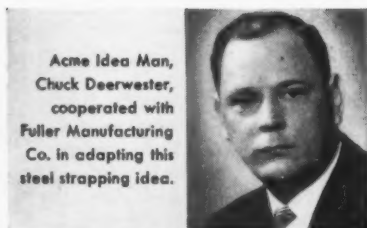
← For more details, adv. opp. pg., circle No. 79 on Reader Service Postcard

← See Directory listing page 137, adv. opp. pg.





**Check your AIM\*. . . Fuller Manufacturing Company did . . .  
Strapping transmissions saves money, speeds handling**



Acme Idea Man,  
Chuck Deerwester,  
cooperated with  
Fuller Manufacturing  
Co. in adapting this  
steel strapping idea.

**ACME STEEL STRAPPING** helped Fuller Manufacturing Company, Kalamazoo, Michigan, eliminate costly crating and slow manual handling. Now, two transmissions are steel strapped to a wooden skid, with protective top frame. This is accomplished in half the time previously required for the crating operation by the same crew. (Idea No. U6-6)

The steel strapped skid loads are moved by lift truck, can be stacked six high. Appreciable savings in material cost and storage space are realized.

And, damage in transit is reduced.

**\*Check your Acme Idea Man.** His Ideas-In-Action files prove scores of ways to better protect products from production lines to customers. Write to Dept. WCU-47, Acme Steel Products Division, Acme Steel Company, 4903 Pacific Blvd., Los Angeles 58, Calif. Other offices in San Francisco, Seattle, and Portland.



## STEEL STRAPPING

... for more details, circle No. 81 on Reader Service Postcard  
See Directory listing page 118

**WESTERN INDUSTRY — April 1957**



**M-H PACEMAKER LIBRARY — YOUR SELECTION FOR THE ASKING**

# BEST M-H MANUALS...

**35 on racks, bins, shelving (p. 105)**

**8 on steel strapping equipment (p. 109)**

**40 on conveyor belts and idlers (p. 110)**

THIS MONTH'S unique WESTERN INDUSTRY self-service library appropriately covers equipment important to you in determining pacemaker solutions to your current problems in the movement, packaging and storage of materials.

Collected during the past three months by WESTERN INDUSTRY editors

for this special edition, these outstanding how-to-do-it manuals are offered free of charge to production and plant operating men in Western plants. Special permission has been obtained from each manufacturer to make this possible.

You are invited to check the concise listings appearing on pp. 105-115

and select those manuals that appear to offer the most timely help in solving your special problems. Circle appropriate key numbers on this month's WESTERN INDUSTRY Reader Service Postcard (page 173), and we will be glad to see that you obtain your entire selection promptly. Note that this offer expires on June 30, 1957.

## 35 BEST MANUALS ON RACKS, BINS & SHELVING

### 32 pages of shelving data

Describes the almost limitless combinations possible with a unitized shelving system, illustrating 32 components available. Other sections point out design features, contain photos of several unit types with dimensions. Various attachments are also pictured or sketched. How to plan a steel shelving layout is the subject of one section that includes a floor plan sketch. Examples of the firm's custom products and an index complete the catalog. *Borroughs Mfg. Co.*  
... for your copy, circle No. 210

### Details about adjustable storage rack systems

Describes adjustable storage rack system for pallets, skids, dies and bulk, including a dozen application photos, specification chart with helpful sketch and other informative data. *Sturdi-Bilt Engineering Co.*  
... for your copy, circle No. 211

### Facts on "do-it-yourself" Tube-Strut rack system

Clearly explains simple, unique plan for constructing storage racks with ordinary pipe or tubing, the "universal" clamp. Describes its use in pallet, drum, bar-stock and general purpose racks for every need. Includes picture case histories, specifications and information on how to get a handy Rack Materials Calculator free. *Tube Strut Div., Tubular Structures Corp. of America.*  
... for your copy, circle No. 212

### Racks for use with elevator equipment

Bulletin contains data on barrel, drum and keg racks served by Revolver portable elevators or lift models of electric trucks. Includes in-action photos of rack system and specification sketches. *Revolver Co.*  
... for your copy, circle No. 213

### Storage unlimited with ten-ton rack

Gives all facts you need to know about a rack that requires no clips, no bolts and only one hammer; shows three basic assemblies—upright, "Z" bracing, and shelf arms—and how it can handle any size pallet. Specification chart is for five models with description, size and weight. *Rack Engineering Co.*  
... for your copy, circle No. 214

### 36-page catalog on convertible shelving

Installation photos show Republic shelving in diverse uses to begin this comprehensive catalog that has data on new clip-type shelves. Other types described include bolted type, standard shelving, rack type, closed, with or without dividers and bin fronts, and ledge type. Special purpose units such as mail sorting racks and long parts storage units are covered; as well as shelving parts. Two-page section explains storage engineering using a series of sketches, and other sections relate to assembly details, toolroom and shop equipment, inserts, etc. *Republic Steel Corp., Berger Div.*  
... for your copy, circle No. 215

### How you can benefit with Flow Rack system

Fifty-page data book fully explains how Flow Rack material handling principle works, listing eight benefits to you. Cites typical situations, old ways of handling and advantages of live storage improved method. Contains several field reports on specific material handling problems, with Flow Rack solution, photos and sketches. Several pages contain specifications, data, charts and drawings. Two-page list of national users states specific use of equipment for that company. *Rapids-Standard Co., Inc.*  
... for your copy, circle No. 216

### Racks, frames made with slotted angles

Racks, frames, carts and stands made by the use of slotted angles are described in eight-page illustrated book. Gives many ideas for using angles and accessories for them. Application pictures and accompanying text tell how varied industries are using the angles to fill storage, equipment and maintenance needs. Includes simple instructions for using the material. *Dexion Div., Acme Steel Co.*  
... for your copy, circle No. 217

### Structo system engineering data

Outlines this firm's construction principle of joining lengths of steel angle with standard  $\frac{3}{8}$ -in. bolts, using alternately round and slotted holes. Includes pictures of completed storage products and installations, plus detailed sketches of component parts, and specification data for installation and ordering. *Structo Systems, Inc.*  
... for your copy, circle No. 218

### Racks for barrel handling or special needs

Sample engineering sheets available show special racks built for customers who cannot use regular types. Similar sheets illustrate the firm's end entry and selective, or side entry, type of drum and barrel racks, giving specifications as to length in barrels, feet and number of panels. *West Bend Equipment Corp.*  
... for your copy, circle No. 219

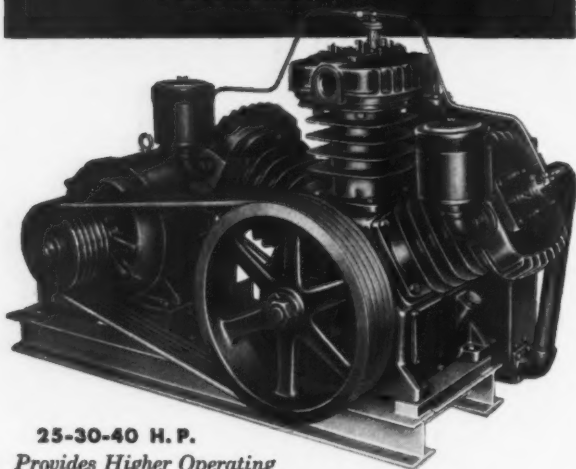


# CURTIS MODEL C-100

Two-Stage, Air-Cooled Air Compressor

Delivers **MORE** Air...

MINUTE  
HORSEPOWER  
**PER** KILOWATT HOUR OF  
ELECTRICAL ENERGY  
CONSUMED



**25-30-40 H. P.**

*Provides Higher Operating  
Efficiency Costs Less to Install*

The Curtis Two-Stage Compressor assures a saving in your power costs. It's air cooled, thereby eliminating expensive water bills—quick and easy installation with no complicated plumbing problems.

The new C-100 embodies all the well-known Curtis engineering features such as centro-ring oiling and Timken Main Bearings.

*For complete information  
write for illustrated folder.*



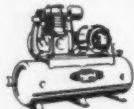
CAN COUNT ON  
REMEMBER...  
204

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OUR 103rd YEAR  
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See Directory listing page 125

## BEST RACKS, BINS, SHELVING MANUALS . . . cont.

### How to double your warehouse capacity

... is title and subject of 16-page catalog about F-G-M steel shelving that offers a variety of shelf sizes and post heights, plus dividers, boxes and drawer inserts to increase diverse combinations possible. It answers bulk, standard package, broken package or parts, and counter and display storage questions, using application pictures for greater clarity. Gives specifications on standard and heavy bulk shelving, racks Rotabins, pallet frames and special items such as fluorescent tube and cable reel racks. The Frick-Gallagher Mfg. Co. . . . for your copy, circle No. 220

### 12-page manual on Palletainers

Four types of Palletainers with side or end gates in 4 styles are described, with features such as flat-fold sides and eight-way entry for lift truck accessibility. Two-page specification chart covers light duty, bearing plate, warehouse and hi-lode models, listing capacity, capacity per tier; height, width, and length; fork clearance, etc. Includes several application pictures. Union Steel Products Co. . . . for your copy, circle No. 221

### 20-page catalog covers Loadmaster racks

Three types of pallet racks for varied storage conditions, and two types of drum and barrel racks described by photos, sketches and brief paragraphs. Design, construction details and specifications included. Also contains section on industrial trucks. Lewis-Shepard Products, Inc. . . . for your copy, circle No. 222

### Facts on portable heavy duty bar racks

Stock storage simplified and equipment that makes it possible is discussed in six-page brochure. Contains many installation and in-action pictures of P-S line of racks used with automatic tonga. Sketches illustrate operating principle. Palmer-Shile Co. . . . for your copy, circle No. 223

### 28-page handbook on racks

Illustrates and lists, in 28 pages, complete specifications and uses for the firm's standard and adjustable racks. Covers pallet, skid, tool and die, tiering and coil stock racks, and those for drums and barrels. Includes helpful charts and application pictures. American Metal Products Co. . . . for your copy, circle No. 224

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WESTERN INDUSTRY — April 1957



## 20-page catalog about Stackbin system

Provides comprehensive description of system with product illustrations, installation photos, facts and figures on dimensions, prices of individual products. Provides six handy different-sized templates, scaled 1/16 in. equaling 1 in., to aid in planning your own layouts and a postcard for requesting information. Catalog gives material for estimating a storage and handling system for parts, tools, materials or other specific needs. *Stackbin Corp.*

... for your copy, circle No. 225

## 16 pages on engineered storage systems

Over 40 application pictures show diversity of this flexible storage system principle, and a greater number of sketches illustrates construction details. Features such as posts that slip-fit into sockets to afford simultaneous use of many lengths, tiers perfectly aligned by use of nesting cones are pointed out. Covers the Paltiers; pyramid portable racks; Palteam hardware and three other types of hardware; four styles of pallet racks; horse racks; adjustable racks, bolted and drive-in racks for bulk pallet storage. *The Paltier Corp.*

... for your copy, circle No. 226

## Dual offering of work carrier data

Two-part presentation of details on work carriers, combinations of racks and rack units easily moved, stacked or packed for long haul shipment. First manual has 12 pages of pictures and texts showing carriers in action plus unit parts, with dimensions, and attachments for the combinations. Second piece illustrates several uses such as handling small parts, sub-assemblies, glass, nesting plugs, etc. and lists over 30 well-known users of the system. *Mechanical Handling Systems, Inc.*

... for your copy, circle No. 227

## Data on shop boxes, toolroom equipment, shelving

Describes and pictures eight types of standard shop boxes and accessories, plus sample specialized containers; items for tool storage such as sloping front, pigeon hole and swinging panel units; different pegs and hooks; shelving accessories; revolving bins; open and closed racks in three load classes, and shelves of many types and sizes. Includes ordering information for all products and many application pictures. *Lyon Metal Products, Inc.*

... for your copy, circle No. 228

## Facts on six storage rack types

Six types of storage racks—drum, barrel, crate, bins, skid, and pallet—are discussed in this 12-page catalog. Eight facets of the storage problem are outlined in explaining the firm's system. Pictured case histories point out the firm's engineering service for unusual storage problems, and a blueprint illustrates shelf variations for such cases. *Barrett-Cravens Co.*

... for your copy, circle No. 229

## Descriptive data on drum racks

Contains several case history pictures of the Economy line of racks in use and explain styles, their construction, how to group racks and how to get free engineering service for your drum or barrel storage problems. Details side-loading types with chart of specifications; similarly treats the end-loading type available in 2 to 25 drum lengths or 4 to 50 ft., with 2 to 11 panels spaced from 3 ft. 1 in., to 4 ft., 11 in. Also shows lifters and stands for handling barrels and drums. *Economy Engineering Co.*

... for your copy, circle No. 230

## Reference manual for steel equipment

Contains 48 pages of data on five types of shelving, four of bins, as well as drawer units, lockers, and several other kinds of equipment. Section on shelving covers iron grip, clip style, sliding shelf, old record, office and book, giving assembly and installation details. *Equipto Div., Aurora Equipment Co.*

... for your copy, circle No. 231

## Descriptive folder on pallet racks

Easy two-unit assembly of the Duo-Mity steel pallet racks is explained in this four-page leaflet. Pictures show construction details and text lists uses such as storing aircraft and automotive parts; food products; paper supplies and paints, and other commodities that are palletized. *Butler Mfg. Co.*

... for your copy, circle No. 232

## 54 pages on shelving equipment

Catalog covers six categories of steel shelving equipment for varied needs; explains important shelving requirements. Detailed labeled drawing illustrates principal components and uses. Types covered are boltless steel storage shelving; adjustable library shelving; Verti-file for filing active records; Templa-file that gives 2,880 sq. ft. storage space in 25 sq. ft. of floor area and design for templates, patterns, gaskets, etc.; shop equipment, and cabinets for storage, wardrobe and combination purposes. Illustrations of products and application, with complete specifications. *DeLuxe Metal Furniture Co.*

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## BEST RACKS, BINS, SHELVING MANUALS . . . cont.

### Method of controlled material placement

Eight pages of facts about engineering service with rack conveyor system that facilitates speed and safety in handling material from arrival at your stock rooms to final disposition. Application pictures and text explain essential facts in the system, and a clock-type chart brings out time-saving features. Lists over 320 companies that employ the service. *Rack Engineering Co.*

. . . for your copy, circle No. 234

### Structural fittings for shelves

Ten-page catalog of Key-lock fittings for use with iron pipe for a variety of storage uses. Lists and pictures over 40 types, with pipe sizes, dimensions, weight and line drawing of each. Includes fittings for straight couplings, various sockets and angles, cross-over, corner swivel, collar, hook and eye, railing support, etc. *National Industrial Supplies Co.*

. . . for your copy, circle No. 235

### Data on NesTier parts handling equipment

Features wire baskets for handling fragile or highly finished parts and recommended when parts within a container need to be positioned for easy withdrawal. Gives data on basket and wire sizes in either nesting or stacking designs with fixed or movable handles. Describes facilities for design of special items. *Chas. Wm. Doepke Mfg. Co., Inc.*

. . . for your copy, circle No. 236

### Facts on Johnson-Flaherty rack line

Brochure gives data on this firm's rack and shelving equipment, such as adjustable stock racks, plywood stacking racks, stacking pallets, and pallet and stock racks in various models. *Johnson & Flaherty Mfg. Co.*

. . . for your copy, circle No. 237

### How to plan your storage needs with bulk bins

Stressing the "Float Wedge" construction with no bolts, nuts, cross bracing or erection welding, leaflet describes the firm's steel bins for bulk storage. Sketches show three-step assembly and other features. Detailed drawing with specification chart shows how to plan storage needs. *Sturdi-Bilt Engineering Co.*

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### Brochure on Flexi-bins

Features of the line such as snap-in dividers, label holders and inclined gasket shelves are pointed out in this eight-page pamphlet. Gives specifications and sketches of 10 different models, plus an exploded view of the design principle. *Borroughs Manufacturing Co.*

. . . for your copy, circle No. 239

### Pallet racks for unusual storage problems

Four-page folder deals with simply-assembled pallet racks that are shipped knocked down. Before-and-after photos and other application illustrations. Sketches and descriptive paragraphs give complete details. *Republic Steel Corp., Berger Div.*

. . . for your copy, circle No. 240

### Data sheet on collapsible pallet racks

Assembly methods, construction details, specifications and uses of this line are concisely explained. Includes pictures of erection, component parts and application. *Mechanical Handling Systems, Inc.*

. . . for your copy, circle No. 241

### Selection guide for Paltier rack items

Tells how and when to select different products of this firm for specific needs. Covers the flexible Paltier: pyramid, pallet, H and L, U and L, and adjustable racks; pallet hardware of various types, and drive-in racks. *The Paltier Corp.*

. . . for your copy, circle No. 242

### How to solve your storage problems

. . . is discussed in a 12-page booklet about Equipto steel shelving. Lists and pictures eight components for the unit system and presents a three-step layout planning system. *Equipto Div., Aurora Equipment Co.*

. . . for your copy, circle No. 243

### Three case histories by Sturdi-Bilt

Takes three typical storage rack problems from varied industries and tells how this firm's storage system provided solutions. Pictures show step-by-step methods. *Sturdi-Bilt Engineering Co.*

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## 8 BEST MANUALS ON STEEL STRAPPING EQUIPMENT

### 44-page Acme steel strapping manual

How steel strapping can speed up packaging, lower costs and give safer shipment is detailed in this book that includes a complete description of steel strapping tools and equipment. It points out five basic ways to use steel strapping—reinforcing, bundling, baling, palletizing and skidding, and tying. Discusses freight carloading methods, covering anchored, full floating and controlled floating loads. *Acme Steel Co.* . . . for your copy, circle No. 245

### 48-page packaging and carloading guide

Handy, comprehensive booklet tells how to package and carload for maximum product protection at minimum cost. The firm's complete line of packaging and carloading materials—strapping, seals, strapping tools, grain doors, retaining strips, etc.—are shown and described, with instructions given for application. Whether you ship in cartons or on skids, load in closed or open top freight cars, this booklet will give you valuable aid. *Signode Steel Strapping Co.* . . . for your copy, circle No. 246

### Stanley "Strapplication" manual and kit

This material provides a permanent reference guide to time and money-saving packaging, handling, storing, and shipping techniques. Contains catalog describing the company's steel strapping system, hand and power strapping tools, strapping and accessories. Strapplication data sheets and brochures describe packaging with strapping in industries such as brick, textile, lumber, metal products, etc. Gives ideas and practical suggestions on the entire packaging subject. When requesting your copy of the material specify particular industry of interest to you. *Stanley Steel Strapping Div., The Stanley Works.* . . . for your copy, circle No. 247

### "Blue Book of Packaging Facts"

Detailed 36-page manual that describes and pictures 10 models of round steel strapping machines and five models of flat steel machines, plus accessories, sealers, cutters, and other strapping equipment. Gives brief history of the strapping field, a complete index and two-page chart of technical data. *Gerrard Steel Strapping Div., United States Steel Corp.* . . . for your copy, circle No. 248

### Data sheet on expendable steel strap

Four-page folder explains the Expand-R-Strap made of alternately flat and corrugated sections of stainless steel with high-corrosion resistance, used to hold insulation snugly around tanks, drums, and other equipment that expands and contracts in circumference. Construction features, application directions, and technical facts on primary and secondary stretch, physical specifications, etc., are included. *A. J. Gerrard & Co.* . . . for your copy, circle No. 249

### Detailed brochure on Brainard strapping

Twelve pages of information on this line of steel strapping, starting with a section on cost-reduction. Subjects covered are tensional and heavy duty strapping, strapping seals, heavy duty and tensional strapping tools, accessories and manufactured strapping. Gives specifications and illustrations of each product. *Brainard Steel Div., Sharon Steel Corp.* . . . for your copy, circle No. 250

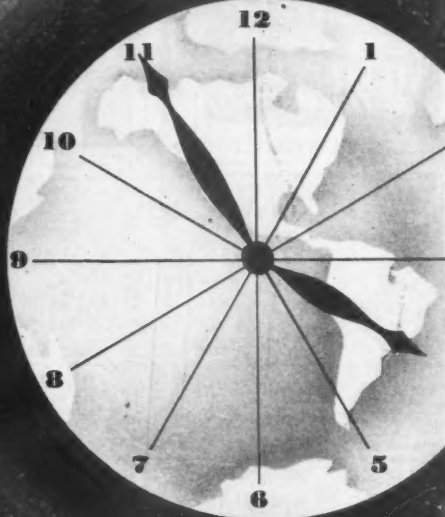
### Three-in-one Steelbinder assortment

This triple presentation of facts includes two pamphlets and a 12-page manual, "How to Operate the No. 100 Steelbinder," in which picture sequences show application for off-the-reel strapping and on a pre-cut length of strap. Contains other valuable instruction tips, a parts list, detail drawings and application photos. First of the pamphlets deals with the same tool, used for auto parts, recuperage, conduit, hardware, export products, machinery, etc., giving details on a combination unit, with specifications and photos. The second concerns using the tool for strapping signs of all kinds, presenting various tools and equipment for such use. *A. J. Gerrard & Co.* . . . for your copy, circle No. 251

### 50 ways to use steel strapping

Dozens of clues to better packaging are given in this book featuring 50 pictured applications for steel strapping. The unitizing principle of integrating individual products or packages into one unit through the use of steel strapping is explained. Skid loading, palletizing and self-palletizing in shipping and storing paper products, clay products, metal working parts, and automotive products are pictured and described. Brief review of Acme's "idea man" service. *Acme Steel Co.* . . . for your copy, circle No. 252

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110

## 35 BEST MANUALS ON CONVEYOR BELTS

### 16-page manual on installation and care

Tips on installation and care of conveyor and elevator belts, treating each separately. Also sections on repair, vulcanizing belt splices in the field, and elevator belt splicing. Step-by-step pictures and several other illustrations. *Thermoid Co.*

... for your copy, circle No. 253

### Three types of package conveyor belts

Chiefly covers Para-Lift belting with rows of rubber cleats that permit using lift angles up to 45 deg. with many common materials. Contains construction, application details for this, for crepe surface, and for traction top belting for package uses. *New York Belting & Packing Co.*

... for your copy, circle No. 254

### 16-page manual on rubber belting

Describes and pictures rubber belting for bulk, package, grain and hot material conveyors; also elevator, transmission, mucker and pulley lagging belts. Gives specification for several types for each purpose. Six pages technical data and tables dealing with horsepower formulas, width, inclines, pulley diameters, tensions speeds, etc. *Goodall Rubber Co.*

... for your copy, circle No. 255

### Plain, galvanized or stainless steel belts

Simplified selection is stressed in 16-page booklet about this firm's line of seven standard and two heavy-duty belts, available in three types for degrees of corrosion-resistance. Detailed blueprints provide technical installation data, Sections on proper guiding and general belting hints. *Wickwire Spencer Steel Div., Colorado Fuel & Iron Corp.*

... for your copy, circle No. 256



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WESTERN INDUSTRY — April 1957



### 36-page Hewitt-Robins manual

Section headings on conveyor and coal conveyor belting, food processing belting, rubber accessories and engineering data. Includes definition of belting terms, application photos, several tables and charts on determining diameter and length, horsepower, inclined length, speeds, etc. Accessories offered are skirtboard rubber, chute lining, pulley lagging, scraper rubber. Over 20 types of conveyor belting and 6 types for coal conveyors described. *Hewitt-Robins, Inc.*  
... for your copy, circle No. 257

### Facts on hinged steel belt

Included in this firm's general catalog is data on range of sizes of hinged steel belt conveyors, using exploded photographic illustrations to show their assembly. Gives range of pitches, gages, etc., for the items. Another section treats Little Hustler, portable fabric belt conveyor with cleats, that has adjustment in both vertical plane and incline, and comes with various types of hoppers. *May-Fran Engineering Co.*  
... for your copy, circle No. 258

### Selection guide for Quaker Pioneer belting

Eight-page catalog gives facts on several grades of conveyor and elevator belting. Performance, specifications, sizes, and photos of each are included, as well as data to explain the line's four types of construction. Covers over 20 brands of belting for varied purposes. *Quaker Pioneer Div., H. K. Porter Co.*  
... for your copy, circle No. 259

### Brochure on pivoted belt attachments

Covers Pivot-flite cleats, can cleats, load grips and potato chain cleats for use with conveyor belts in various industries. Pictures show how the cleats work and easy installation. Also available is brochure with details on Bolta-flite cleats, Vulca-flite cleats and special belting produced by the firm. *Holz Rubber Co.*  
... for your copy, circle No. 260

### Two data folders on balata belting

Two similar 4-page data folders give full details on Dick and Dixit balata belting suited for use in sawdust, slab, grain, chips, etc. installations. Tables show horsepower that each inch of width of belting will transmit at speed given, and minimum diameter pulley to be used for hp. at different speeds. Other specifications and prices also. *R. & J. Dick Co., Inc.*  
... for your copy, circle No. 261

### Spec sheet on Weld-bilt steel belt

Gives check-list of desirable features for steel belts, with detailed labeled sketch of typical horizontal conveyor. Points up versatility, positive tracking, avoidance of slippage and other advantages. *West Bend Equipment Corp.*  
... for your copy, circle No. 262

### Facts and figures on neoprene rubber belting

Six-page presentation lists and describes eight types of this belting, pointing out specific uses for each, such as food industries, heavy duty incline or decline conveying, severe grease conditions, etc. Gives price list chart for various plys and other specifications. *Globe Woven Belting Co., Inc.*  
... for your copy, circle No. 263

### Bulletin on impact-cushioned conveyor belt

Five-page folder contains descriptive paragraphs, sketches, application pictures outlining construction features of the Homocord brand. Lists advantages of design in this belting and shows results of tests for cushioning and strength. *Raybestos-Manhattan, Inc., Manhattan Rubber Div.*  
... for your copy, circle No. 264

### Booklet on Tabletop conveyor chains

Pictures and describes steel and nylon Tabletop chain and sprockets for use with them. Application pictures show scope of application. Sections on conveyor chain engineering, chain lubrication and conveyor design. Also gives data on Plate Top roller chain, Crescent Top Chain, Loose-pin case conveyor and Riveted case conveyor chains. *Chain Belt Co.*  
... for your copy, circle No. 265

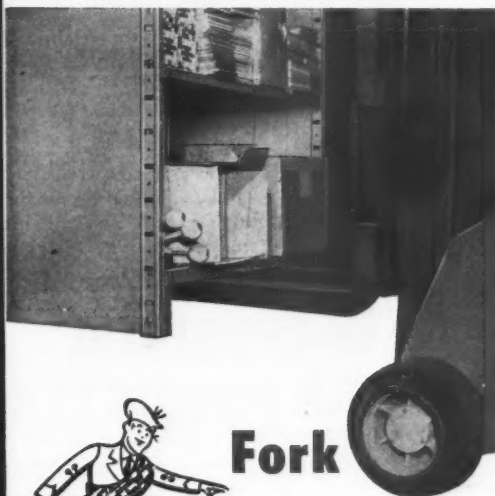
### Purchasing guide for Textile belting

Six-page circular gives brief description, photos, price lists for 9 types of belting, such as neoprene, balata, canvas stitched, hycar-treated and others. *Victor Balata & Textile Belting Co.*  
... for your copy, circle No. 266

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## BEST MANUALS ON CONVEYOR BELTS . . . cont.

### Pre-bilt sectional belt conveyors

Describes standard conveyor belt products packaged with standardized sectional truss frames and structural steel supporting bents. Sketches show the 27 components for the system—such as head terminal, chain drive and guard, motogear, lateral frame, loading hopper, etc. Case history pictures show sectional conveyor used for sand, gravel and stone; metal mining; construction; chemicals; pulp and paper, and stone. Gives details on firm's engineering service. *Link-Belt Co.* . . . for your copy, circle No. 267

### Conveyor belts for special handling problems

Special catalogs put out for individual industries. For example one for grain handling describes the firm's five types of belting, with specific applications for which each is designed, materials from which belt is made and physical specifications of belts, both for general and for oil-resisting services. To obtain proper catalog circle key number and specify your industry or problem. *United States Rubber Co.* . . . for your copy, circle No. 268

### 24-page manual on conveyor, elevator belts

Treats 10 types of standard industrial conveyor belting plus several special service kinds; chute and launder lining; pulley lagging, and paper mill screen diaphragms, with specifications, uses and construction features for each. Similarly deals with several types of elevator belting, standard and special service. Technical data pages contains tables, calculation tips and details for care and maintenance. *Republic Rubber Div., Lee Rubber & Tire Corp.* . . . for your copy, circle No. 269

### Data on heavy-duty conveyor belts

Describes characteristics of five different types of heavy-duty conveyor belts. Has useful data and charts about belt damage causes and their remedies. Tables to aid in selection for all types of heavy bulk material handling application. Includes specifications, sketches, photographs. *Barber-Greene Co.* . . . for your copy, circle No. 270

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WESTERN INDUSTRY — April 1957



### 30-page selection, maintenance manual

Features brand recommendation chart and a guide to maximum belt life. Contains over 30 pages describing stitched canvas belting for conveyors, elevators and power transmission. Installation photographs and accompanying service records in many industries. Details manufacturing process for Innerlocked belting. Covers range of belting from relatively light package conveyor service to Super Insulated Sahara, a foundry belt that will withstand 600 deg. F. temperature. Data pages deal with belt tension, safe working loads, pulley diameter and belting maintenance. *Imperial Belting Co.*

... for your copy, circle No. 271

### 138 pages on woven wire conveyor belting

Reference source and guide for users of belting filled with facts and pictures. Over 60 case history photos in widely diversified applications. Gives 9 detailed industry flow sheets, several tables such as conversion of fahrenheit and centigrade; hardness conversion, weight for steel rounds, squares, angles, etc.; the metric system, and wire gages. Many sketches and details on variety of beltings. *Cambridge Cloth Co.*

... for your copy, circle No. 272

### 20 pages on 11 types of Ton-Tex belting

Guide for engineers, maintenance men, buyers and machinery manufacturers to selecting types and styles of belting for various applications, or installed on flat belt conveyor systems. Gives typical pictured installation problems from widely varied industries. Clearly explains 11 different types, plus belts for special ordering, and lists over 60 applications in industries. *Ton-Tex Corp.*

... for your copy, circle No. 273

### Conveyor catalog gives belt information

Sections of general conveyor catalog deal with package handling, trough and coal handling conveyors and the belts for use with them. Covers models of package handling conveyors, four of trough conveyors and unloaders, flat belt and drag types. Contains specifications, ordering data, pictures and prices. *The Oliver Corp., A. B. Farquhar Div.*

... for your copy, circle No. 274

### Maintenance tips for steel belt conveyors

Four-page article reprint gives two-part guide for maintenance, with pictures and illustrative sketches. Tells how to maintain steel belts, scrapers and cleaners, idlers, motor and power transmission, guides, etc. Paragraphs on lubrication and storage. *Sandvik Steel Belt Conveyors Div., Sandvik Steel, Inc.*

... for your copy, circle No. 275

### Data sheets on belting types

Solid woven cotton, plastex, latex-treated, glazed, rubber filled and covered belting are described in these sheets. Recommends uses in various industries, showing colors and resistance qualities. Application pictures, outstanding features and price information included. *Buffalo Weaving & Belting Co.*

... for your copy, circle No. 276

### Conveyor, elevator and transmission belts

Has 32 pages of descriptive data, specifications and belting reference information. Lists over 100 materials and the proper belt type recommended for each. Data chart and comparable belting reference chart. *Boston Woven Hose & Rubber Co.*

... for your copy, circle No. 277

### Catalog sections on conveyor, elevator belts

Cutaway photos and other illustrations bring out salient facts on belt construction for this brand with bonded edges, seamless plies. Details the Trans-cord breaker for greater adhesion of cover to carcass, and several features of the firm's vulcanized splice. *B. F. Goodrich Co.*

... for your copy, circle No. 278

### Details on 8 belting grades

Details belting for high heat or oily conditions, abrasive conditions of different degrees, for food handling, etc. Many tables and charts for various specifications concerning plies, belt speeds, belt width relationships, drive and weight factors, pulley diameters, tension and other pertinent data. *Thermoid Co.*

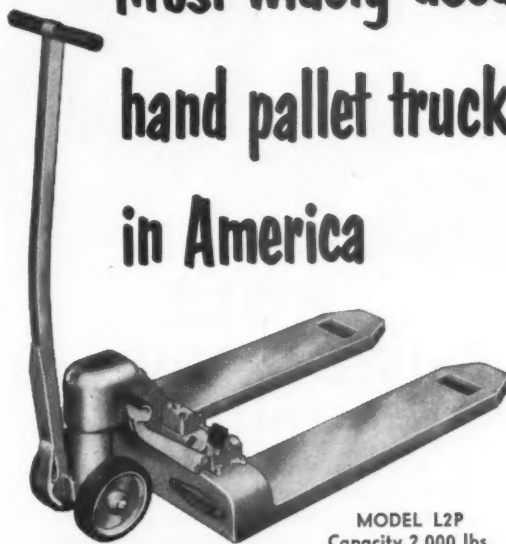
... for your copy, circle No. 279

### Fact sheet on cotton-nylon belting

Lists seven operating and maintenance advantages of this conveyor belt with cotton-nylon plies. Gives several industrial applications, and tables to show maximum operating tension, maximum plies for proper troughing, recommended pulley diameters and minimum plies to support load. *New York Belting & Packing Co.*

... for your copy, circle No. 280

## Most widely-used hand pallet truck in America



MODEL L2P  
Capacity 2,000 lbs.

**RAYMOND**® *Lightweight*

## HYDRAULIC PALLET TRUCK

BIG CLAIM for a little truck... but it's absolutely true! More RAYMOND Lightweight Hydraulic Pallet Trucks are purchased today than any other hand pallet truck.

WHY? Because this RAYMOND Truck does so many jobs so well... is superbly built to withstand years of use and abuse. Lightweight to lessen operator fatigue, easy to maneuver and pull. Patented booster roll provides effortless pallet entry. Convenient foot pedals lift and lower your load. Completely precision hydraulic for dependable operation. Includes aluminum alloy construction, husky one-piece welded steel frame, safe dual-purpose brake, 270° turning radius.

### THE RAYMOND CORPORATION

Greene, N. Y.

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W. T. Billard, Inc.  
734 East Third St.

#### SEATTLE:

Air-Mac, Inc. of Washington  
3838 Fourth Avenue, South

#### ALBUQUERQUE:

E. D. Flournoy Co.  
217 Sixth Street, S.W.

#### OGDEN, UTAH:

The Horsley Co.  
2416 Grant Ave.

#### SAN FRANCISCO:

Rapistan of California, Inc.  
444 Brannan St.

#### PORTLAND:

Air-Mac, Inc. of Oregon  
1111 S.E. Grand Avenue

#### PHOENIX:

E. D. Flournoy Co.  
410 South 2nd Avenue

#### DENVER:

Murray Sales Co.  
16 Wazee Street

... for more details, circle No. 92 on Reader Service Postcard  
See Directory listing page 142

113



## Industrial Tire Users



### HOLZ Solids & Vulcons

Can Save You Real Money!

A better tire—quality controlled from compound milling through finish—in our own factory. Not a retread, but 100% NEW RUBBER. Quick service, using your rims or exchange. A proven product with a firm guarantee.

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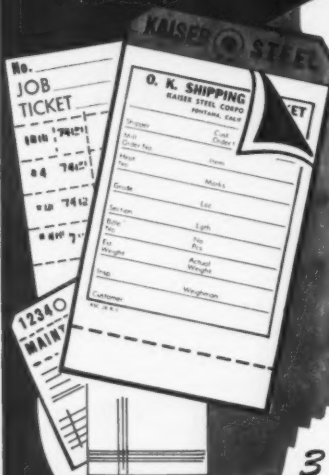
**HOLZ RUBBER COMPANY, Inc.**

Phone ENdicott 9-4771

LODI, CALIFORNIA

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See Directory listing page 132

**Let EASTMAN TAGS  
WORK  
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#### • NUMBERED TAGS

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"NO CARBON REQUIRED" IF  
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LABEL CO.**

RICHMOND • LOS ANGELES • SEATTLE

Sales offices in all principal  
Western Cities

... for more details, circle No. 94 on Reader Service Postcard  
See Directory listing page 127

### Solid steel-belt conveying

Schematic drawing, close-up photos and action pictures point out design features of True-Track steel belt conveyors providing permanent alignment. Illustrates uses in chemicals processing, meat packing, sugar cartoning and handling automotive parts. *Sandvik Steel Belt Conveyors Div., Sandvik Steel, Inc.*

... for your copy, circle No. 281

### Data sheet on Nylite belting

Light duty conveyor belting, with either synthetic or natural rubber cover compounds, described in detail. Two tables give specifications and physical properties. Gives applications for various industries, primarily food processing. *New York Belting & Packing Co.*

... for your copy, circle No. 282

### U. S. Rubber belts for wide range of service

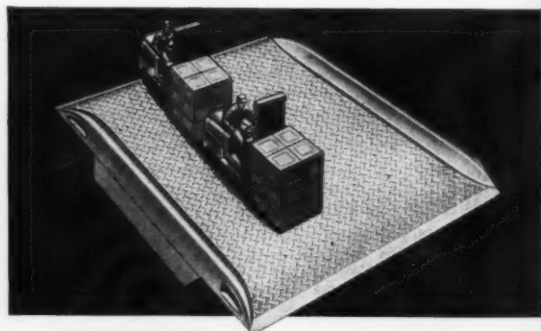
Describes construction features and physical characteristics of belts for use in mining, steel paper, foundries and public utilities. Industrial belts covered range from heavy duty to oil resistant surface types. Recommendations on splicing materials. Photos and copy cover nine types of service. *United States Rubber Co.*

... for your copy, circle No. 283

### Facts on Ray-Man F conveyor belt

Explains two-part construction principle of this brand of cotton Homoflex fabric encased in open-weave synthetic fabric envelope, providing flexibility and troughability, high resilience, fastener-holding ability and mildew resistance. Briefly reviews also two general heavy duty belts and two belts for long life and high tension. Explains digit and letter meanings in style numbers. *Raybestos-Manhattan, Inc., Manhattan Rubber Div.*

... for your copy, circle No. 284



### AN EXTRA POWER TRUCK FOR THE PRICE OF A DOCK BOARD!

Make your power equipment produce more—back them up with Magliner magnesium dock boards!

Magliners rid your operation of bottlenecks, hazardous loading conditions ... high costs! They speed dock traffic ... give you faster loading cycles ... promote safety and efficiency. As one customer aptly put it—"It's like getting the services of a second power truck free for the price of a Magliner magnesium dock board!"

Magliner dock boards are light ... strong ... safe! Made of magnesium for easy, one-man handling, rugged dependability and economical, long-life service. Custom-engineered to meet the specific requirements of your dock, equipment and operating conditions. Need an extra power truck? Check into Magliner magnesium dock boards today.

Write today for Bulletin DB-204

**MAGLINE INC.**

P. O. Box 54, Pinconning, Mich.

**MagLiner**  
MAGNESIUM

**DOCK BOARDS**

Canadian Factory: Magline of Canada Ltd., Renfrew, Ontario

Air Mac, Inc., 3838 4th Ave., South Seattle 4, Wash.; 313 N. Grandview, Yakima, Wash.; East 3710 Trent Ave., P. O. Box 1125, Spokane 10, Wash.; 1111 S. E. Grand, Portland 14, Ore.; 1003 Washington Blvd., Tacoma 2, Wash.; All Bearing Sales & Service Co., 602 Fulton St., Fresno, Calif.; W. T. Billard, Inc., 734 E. Third St., Los Angeles 13, Calif.; Equipment Supply Co., 16 Post Office Pl., Salt Lake City 1, Utah; E. D. Flournoy Co., 217 6th St., S. W. Albuquerque, N. M.; Namerslag Equipment, Inc., 110 Freeway Blvd., South San Francisco, Calif.; Kistler Industrial Service, 902 S. Central Ave., P. O. Box 1204, Phoenix, Ariz.; Plant Equipment Co., 1400 Market, Denver 2, Colo.; Winn Supply Co., 256 7th Ave., P. O. Box 1709 San Diego 12, Calif.; Yale & Towne Mfg. Co., 6027 Whittier Blvd., Los Angeles 22, Calif.

... for more details, circle No. 95 on Reader Service Postcard  
See Directory listing page 137



### Facts on high tension belting

Lists five features of Boston high tension belts with application pictures. Specification on construction, weight and gage; safe maximum working tensions; minimum pulley diameters and recommended minimum and maximum belts plies for belt widths from 12 to 60 ft. *Boston Woven Hose & Rubber Co.*

... for your copy, circle No. 285

### Data chart for stitched canvas belting

Helpful information on 14 brands of belting given in brochure with handy reference data chart that deals with conveying parts or packaged material, conveying and elevating bulk materials, quality features and description as to color, treatment, tensile strength, etc. Includes section on belt construction, and price list. *Globe Woven Belting Co., Inc.*

... for your copy, circle No. 286

### Data on balanced cord belts

Catalog section 2300 uses comparison photos to show brand's advantages in reducing spillage, resisting water damage, troughing characteristics, etc. Covers types for 2,500 to 3,500-lb. average cover tensile and for 3,500 to 4,000-lb. average, as well as steel cord belt and splicing steel cord conveyor belts. *B. F. Goodrich Co.*

... for your copy, circle No. 287

## 6 BEST MANUALS ON CONVEYOR BELT IDLERS

### 88-page catalog on belt conveyors, idlers

Complete handbook of information on latest designs of conveyor details and engineering data necessary to design a belt conveyor for any application. Sections on cast iron or steel idlers concerns three classes of flat belt types, and six of troughing types. *Jeffrey Manufacturing Co.*

... for your copy, circle No. 288

### 50-page catalog on Link-Belt idlers

Covers Series 100, 200, 400, 500, 600, 90 and 1225 idlers for varying degrees of service and kinds of material. Lists many models in each series, with specifications and photos of each. Includes facts on idler accessories of the line, tips and tables on selection, and indexes as to subject and alphabetically. *Link-Belt Co.*

... for your copy, circle No. 289

### 16-page brochure on conveyor belt carriers

Contains data on several types of equipment designed to prolong conveyor belt life and insure maximum service. Installation pictures, cutaway drawings, sketches and product pictures bring out pertinent facts. *Stephens-Adamson Mfg. Co.*

... for your copy, circle No. 290

### 12 fact-filled pages on belt conveyor idlers

Design and application information for users of belt conveyor idlers. Gives specifications, sketches, ordering information for several types and for accessories such as brackets and stands, bearings, tools, pliers in the Limeroller line. Includes data guide for efficient recommendations and brief review of other conveyor components. *Joy Manufacturing Co.*

... for your copy, circle No. 291

### How to select your belt idlers

In 64 pages, this selection handbook gives complete data on 4 series of Rex-Rated idlers. Sections treat Series 1000 for moderate loads at moderate speeds; 2000 for normal loads and speeds; 3000 for heavy loads and high speeds, and 4000 for extra long life, heaviest loads and lump sizes. Shows troughing idlers with greasable roller bearing rolls and matching return idler models as well as some models of flat, picking conveyor, impact flat spiral and other types of idlers. Six-page section gives tips for quick and proper selection of idlers for your needs. *Chain Belt Co.*

... for your copy, circle No. 292

### Facts on turnover conveyor belt system

Bulletin pictures and describes belt stabilizer that turns belt over at both ends by using two additional snub pulleys, permitting belt's clean side to be presented to return idlers or pulleys. Developed cooperatively by Chain Belt Co., National Iron Co. and B. F. Goodrich Co. *B. F. Goodrich Co.*

... for your copy, circle No. 293

## CUT YOUR COST OF STORAGE RACKS IN 1/2 WITH..

### TUBE-STRUT THE UNIVERSAL CLAMP ... and ordinary pipe!

ONE CLAMP—used with ordinary pipe or tubing, builds every type of storage rack—pallet, drum, bar-stock and general purpose.  
ONE CLAMP—does the job faster—stronger—for far less money... and obsoletes all the complicated "systems."

TUBE-STRUT DIVISION  
TUBULAR STRUCTURES CORPORATION OF AMERICA  
2960 MARSH STREET • LOS ANGELES 39, CALIFORNIA

### MAIL COUPON FOR YOUR FREE COPY

Tube-Strut is a single, patented coupling. Its simple principle, used with common pipe or tubing—gives you the storage racks you want—FAST, with the greatest strength and versatility... AT A LOW, LOW COST! 100% ADJUSTABLE—100% RE-USABLE NO THREADING—NO WELDING



This Tube-Strut "Rack Materials Calculator" shows you at a glance—how many feet of pipe and the exact number of Tube-Strut clamps required for any storage rack installation.

### MAIL COUPON FOR YOUR FREE CALCULATOR

TUBE-STRUT DIVISION, SERVICES DEPT.  
TUBULAR STRUCTURES CORP. OF AMERICA  
2960 MARSH STREET, LOS ANGELES 39, CALIF.

Please Send Me a Tube-Strut Calculator ☐ Brochure ☐

Name

Company  Position

Street

City  State  WI

... for more details, circle No. 96 on Reader Service Postcard  
See Directory listing page 147





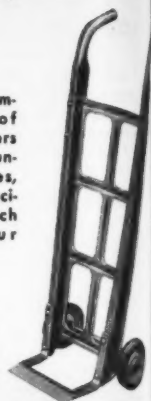
A money saving combination, the new Lewis-Shepard HydraFork, a narrow aisle truck with extendible forks, is being used to load the very popular Sturdi-Bilt adjustable storage racks.

Penco Magnesium Truck and Car Loading Ramps in widths of 40, 48 and 60 inches; lengths from 24 to 72 inches.



We carry a complete stock of industrial casters and wheels, hundreds of types, sizes and capacities from which to make your selection.

The American Daisy, a popular all purpose truck. One of many styles carried in stock for immediate delivery.



## MATERIAL HANDLING EQUIPMENT

That Moves The Load  
Faster For Less

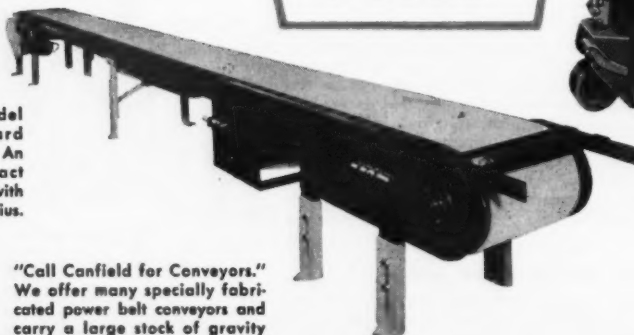
As distributors of material handling equipment, M. E. Canfield Company is continually striving to combine the best equipment with the finest assistance possible on every material handling problem. Since 1909 our company has been serving Southern California industrial firms. As material handling needs have grown our stocks have been expanded.

Today our lines of equipment include all of the well-known Lewis-Shepard products as well as a wide selection of equipment of other manufacturers. In addition to this we are equipped to do special fabrication work to meet specific requirements. Illustrated here are just a few of the hundreds of pieces of equipment which our company has available to help cut your material handling costs. Our engineers are ready to offer assistance on all material handling problems you may have. Call us often for...

*"Anything from a caster to a conveyor"*



Spacemaster Model "J" Lewis-Shepard electric fork-truck. An extremely compact and rugged truck with a 49" turning radius.



"Call Canfield for Conveyors." We offer many specially fabricated power belt conveyors and carry a large stock of gravity conveyors for quick delivery.

**MAdison  
6-6606**



Lightweight Model pallet truck designed to carry 2,000 pound loads. One of several models offered by Lewis-Shepard.

**M. E. CANFIELD CO.**  
EXCLUSIVE DISTRIBUTOR OF LEWIS-SHEPARD PRODUCTS



410 EAST THIRD STREET  
PHONE MADISON 6-6606  
LOS ANGELES 13, CALIF.



# WESTERN Materials Handling & Packaging BUYERS' DIRECTORY

THIRD EDITION of a



special service feature for plant operating, maintenance and purchasing executives in the eleven Western states

Arizona • California • Colorado • Idaho • Montana • New Mexico • Nevada • Oregon • Utah • Washington • Wyoming

## WHERE TO BUY IN THE WEST

... Pages 118-149

**Contains . . .** Names of material handling and industrial packaging equipment manufacturers in the entire U. S. who have Western sales offices, distributors or representatives (on pages with strip along upper edge).

Complete buying information is shown with each manufacturer's listing, as follows:

Home office address

Products manufactured

Manufacturer branch offices in the West, their addresses and telephone numbers

Distributors and representatives in the West, their addresses and telephone numbers

## CLASSIFIED PRODUCTS

... Pages 150-158

**Contains . . .** Names of manufacturers cross-referenced under 175 categories of material handling and industrial packaging equipment (on pages with strip along lower edge).

## HOW TO USE THIS DIRECTORY

For any product to be purchased or serviced, or about which further details are wanted, refer to correct manufacturer's listing in "Where to Buy in the West" section to obtain name, address, and telephone number of sales and engineering office nearest to you.

If you want more information about a certain type of equipment but names of manufacturers are not known, refer to correct heading in "Classified Products" section for names of all manufacturers of that item who have sales offices in the West.

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## ABC PACKAGING — ALVEY-FERGUSON

**ABC PACKAGING MACHINE CORP.,**  
P. O. Box MM, Tarpon Springs, Fla.  
Case sealing equipment, Glass and can unloaders  
and unscramblers, Case opener, Positioner and  
packer.

*Representatives*  
Calif., Oakland—James Q. Leavitt Co., 410  
25th St. TW 3-9966  
Ore., Salem—James Q. Leavitt Co. Phone  
2-0970  
Utah, Salt Lake City—James Q. Leavitt Co.,  
502 So. 12th St., E. EL 9-5069  
Wash., Seattle—James Q. Leavitt Co., 2702  
First Ave. MA 3654

**ACME CHAIN CORP.,** 821 Main St.,  
Holyoke, Mass.  
Precision roller chains.

*Representatives*  
Calif., Berkeley—Berkeley Industrial Supply,  
1003-5 Pardee St.  
Calif., Los Angeles—Western Belting & Me-  
chanicals, 3525 E. Emery St.  
Ore., Portland—Berg Evans Chain Co., 240  
S.W. First Ave.  
Wash., Seattle—Berg Evans Transmission Co.,  
616 Sixth Ave.

**ACME STEEL CO.,** 135th and Perry  
Ave., Chicago 27, Ill.  
Strapping, Corrugated fasteners, Wire stitching  
machines, stitching wire.

See advertisement on page 104

*Branches*  
Calif., Los Angeles—4903 Pacific Blvd. LU  
8-1241  
Calif., San Francisco—750 Second St. GA  
1-7582  
Colo., Denver—1663 Wazee St. TA 5-0518  
Ore., Portland—2044 N.W. Pettygrove. CA  
2-1637  
Utah, Salt Lake City—520 W. Second So. St.  
EL 5-9567  
Wash., Seattle—1025 Sixth Ave. EL 1102

**AEROL CO.,** 1731 Workman St., Los  
Angeles 31, Calif. CA 5-1501

Casters, Wheels (general industrial, hand truck,  
rubber tired), Floor locks, Pallet loaders, Wheel kits.

*Representatives*  
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Seventh St. BE 3-3106  
Calif., So. San Francisco—Hamerslag Equip-  
ment Co., 110 Freeway Blvd. JU 3-5757  
Colo., Denver—Joe Courney Equipment Co.,  
1243 Walnut St. AC 2-9581  
Ore., Portland—Air Mac, Inc., 1435 S.E. Union  
Ave. FI 6528  
Wash., Seattle—Air Mac, Inc., 3838 Fourth Ave.  
So. MU 3388

**AKRO-MILS, INC.,** P. O. Box 989,  
Akron 9, Ohio

*Representatives*  
Calif., El Monte—Pressteel Co., 9705 E. Garvey  
Ave.  
Calif., Los Angeles—Syd Jurin Co., 4853 Oak-  
wood Ave.

**ALAN WOOD STEEL CO.,** see  
PENCO METAL PRODUCTS DIV.

**ALBION INDUSTRIES, INC.,** 814 No.  
Clark St., Albion, Mich.

Casters, Wheels (conveyor, general industrial, hand  
truck, rubber tired, tractor, trailer).

*Representatives*  
Calif., Los Angeles—Stanley E. Morris Co., 5634  
Alhambra. CA 1-5148  
Calif., Oakland—Industrial Service Co., 616 Mc-  
Clary Ave. LO 9-2545  
Colo., Denver—Joe Courney Equipment Co.,  
1243 Walnut St. AC 2-9581  
Ore., Portland—Oregon Handling Equipment  
Co., 2949 N.W. St. Helens Rd. CA 8-4196  
Wash., Seattle—Cascade Handling Equipment  
Co. 410 Battery St.

**ALDEN EQUIPMENT CO.,** 1451 W.  
Rosecrans Ave., Gardena, Calif.

Manufacturers of conveyors, racks and accessories.  
Distributors for major lines of materials handling  
equipment.

See advertisement on page 74

**ALLEGHENY STEEL BAND CO.,** P. O.  
Box 716, Pittsburgh 30, Pa.  
Steelband strapping, Steelband seals, Tools and  
accessories.

*Branch Offices*  
Calif., San Francisco 7—W. G. Thorn Co., 120  
King St. EX 7-0776  
Calif., Los Angeles 21—W. G. Thorn Co., 735  
So. Decatur St.  
Wash., Seattle 9—W. G. Thorn Co., 710 Harri-  
son St.

*Representatives*  
Calif., Eureka—Fred E. Barnett Co.  
Calif., Los Angeles—General Shipping Rm.  
Supply, 837 Traction Ave.  
Calif., North Sacramento—Fred E. Barnett Co.,  
1121 E. Bassettlaw Ave.  
Calif., Redding—Cascade Industrial Supply.  
Phone 3046  
Calif., San Francisco—Fred E. Barnett Co.,  
1455 Custer St.  
Calif., Ukiah—Fred E. Barnett Co., P. O. Box  
543  
Colo., Denver—Katzke Brothers Paper Co.,  
2495 So. Delaware Ave. PE 3-4681  
Idaho, Lewiston—Jamison Machine & Supply  
Ore., Eugene—American Steel & Supply, 44-51  
7th Ave.  
Ore., Grants Pass—Cascade Industrial Supply.  
Phone 7466  
Ore., Klamath Falls—Cascade Industrial Sup-  
ply, 515 Market St. Phone 3711  
Ore., Medford—Cascade Industrial Supply  
Ore., Portland—Portland Wire & Steel, 4706  
S.E. 18th Ave.  
Wash., Seattle—Zellerbach Paper Co., 6301  
Airport Way  
Wash., Spokane—Spokane Stamp Works, 409  
W. 1st St. MA 2872  
Wash., Tacoma—Zellerbach Paper Co., 2610  
Bay St.

**ALLIS-CHALMERS MFG. CO., BUDA  
DIV.,** Box 512, Milwaukee 1, Wis.  
Tractors (diesel, gasoline warehouse), Trucks (bag,  
barrel, drum, box type, die handling, factory and  
warehouse, diesel fork, gasoline fork, gasoline lift,  
power-driven lift, paper roll, sheet handling, skid  
handling).

See advertisement on page 85

*Branch Offices*  
Calif., Los Angeles—4400 E. 49th St. LU  
2-5421  
Calif., Oakland—1400 Park Ave. OL 3-3100  
Mont., Billings—2501 Fourth Ave., No. Phone  
5-5484  
Ore., Portland—1305 S.W. Union Ave. BE  
2-2177

*Representatives*  
Ariz., Phoenix—Utility Trailer Sales, 1402 No.  
22nd St. AL 4-7211  
Calif., Bakersfield—Calif. Truck & Industrial  
Equipment, 2801 Brundage. FA 5-5914  
Calif., Eureka—Aikins Tractor Co., 2016  
Broadway. HI 2-2986  
Calif., Fresno—Utility Trailer Sales Co., 2660  
So. Railroad Ave. Phone 2-2131  
Calif., Los Angeles 13—Pacific Lift Corp., 405  
Molino St. MA 6-5156  
Calif., Redwood City—Calif. Industrial Trucks,  
501 Standish St. EM 8-1481  
Calif., San Diego—Utility Trailer Sales Co.,  
1950 Main St. EL 9-1384  
Calif., Stockton—Lift Truck Service Corp.,  
2211 No. Highway 99. HO 6-8984  
Colo., Denver—B. K. Sweeney Co., 1601 23rd  
St. KE 4-6211  
Nev., Elko—A-D Machinery Co., Inc., 251 W.  
Commercial. Phone 92  
Nev., Reno—Reno Equipment Sales Co., 1510  
W. Fourth St. Phone 2-7025  
Ore., Medford—Haupt Tractor Co., 3610 No.  
Pacific Hwy. Phone 3-5383  
Ore., Portland—Paulson Machine Works, 1433  
N.W. Quimby St. CA 8-5287  
Utah, Salt Lake City—Motor Mercantile Co.,  
54 W. Seventh St. ST. EM 4-5585  
Wash., Seattle 4—Materials Handling Equip-  
ment Co., Inc., 2963 First Ave., So. SE 0997  
Wash., Seattle—Yukon Equipment, Inc., 327  
Coleman Bldg. SE 6355

**ALLIS-CHALMERS MFG. CO., CON-  
STRUCTION MACHINERY DIV.,** Box  
512, Milwaukee, Wis.

Cranes (yard, tractor), Loaders, Tractors (diesel,  
gasoline warehouse), Tractor Shovels, Bulldozers.

*Branches*  
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5-5421  
Calif., Oakland—1400 Park Ave. OL 3-3100  
Idaho, Pocatello—602 So. First Ave. Phone 193  
Mont., Billings—25th and Fourth Aves. Phone  
5-5484  
Ore., Portland—1305 S.E. Union Ave. BE 2-2177

*Representatives*  
Ariz., Phoenix—Neil B. McGinnis Co., 500 So.  
Central Ave. AL 8-5391  
Calif., Bakersfield—San Joaquin Tractor Co.,  
1201 Union Ave. FA 4-4517  
Calif., Eureka—Aikins Tractor Co., 2016  
Broadway. HI 2-2986  
Calif., Los Angeles—Shaw Sales & Service Co.,  
5100 Triggs St. AN 1-7141  
Calif., Oakland—Buran Equipment Co., 777  
100th Ave. TR 2-5335  
Calif., Redding—Shasta Truck & Equipment  
Sales Co., So. 99 Hwy. Phone 47  
Calif., Sacramento—Industrial Tractor Sales,  
903 Del Paso Blvd. WA 5-8525  
Colo., Denver—Power Equipment Co., 3440  
Brighton Blvd. KE 4-4221  
Idaho, Boise—Southern Idaho Equipment Co.  
of Boise, Inc., 1301 So. Capitol Blvd. Phone  
3-6409  
Idaho, Idaho Falls—Southern Idaho Equip-  
ment Co., 2205 No. Yellowstone Hwy. Phone  
2810  
Mont., Billings—Seitz Machinery Co., 420 N.  
24th St. Phone 2-2103  
Mont., Missoula—Mountain Tractor Co., 1645  
W. Broadway. Phone 6-6651  
Mont., Sidney—Richland Machinery Co., 402  
E. Morrill St. Phone 518  
Nev., Elko—A-D Machinery Co., 251 W. Com-  
mercial St. Phone 92  
Nev., Reno—Reno Equipment Sales Co., 1510  
W. 4th St. Phone 2-7025  
N. Mex., Albuquerque—Harry Cornelius Co.,  
1510 Second St., N.W. Phone 3-1776  
N. Mex., Roswell—Smith Machinery Co., Inc.,  
512 E. Second St. MA 1-1812  
Ore., Eugene—Pape Brothers, 1060 W. First  
Ave. Phone 5-0531  
Ore., Medford—Haupt Tractor Co., 3610 No.  
Pacific Hwy. Phone 3-5279  
Ore., Portland—Wood Tractor Co., 1033 S.E.  
Main St. BE 5-3135  
Utah, Salt Lake City—Cate Equipment Co., 49  
E. Ninth St. So. EL 9-2021  
Wash., Seattle—A. H. Cox Co., 1787 First Ave.  
So. MA 1121  
Wash., Spokane—American Machine Co., 1026  
W. Broadway. FA 2591  
Wash., Wenatchee—Mid-State Equipment Co.,  
213 No. Mission St. NO 2-7151  
Wyo., Casper—Studer Tractor & Equipment  
Co., Box 779. Phone 2-5381

**ALL-STATE ENGINEERING CO., INC.,**  
7050 No. 76th St., Milwaukee 18,  
Wis.

Cranes (charging and drawing; gantry; hand power;  
jib, pillar, swing; overhead-double beam, electric  
and electric traveling, foundry, handpower travel-  
ing, "I" beam, Monorail; (portable electric stack-  
ing).

*Representatives*  
Calif., Los Angeles—Utility Supply Co., 1736  
E. 15th St. RI 9-3178  
Calif., Oakland—The Brose Co., 414 Santa  
Clara Ave. TE 2-4873  
Calif., Redwood City—Peninsula Assoc., 2857  
El Camino Real. EM 9-4226  
Colo., Denver—King & East Mach. Corp., 2390  
So. Delaware St. SH 4-1747

**ALVEY CONVEYOR MFG. CO.,** 9301  
Olive St. Rd., St. Louis 24, Mo.

Conveyors (apron, automatic, bag and bale, belt,  
bucket, chain or link, continuous flow, drag, flight,  
foundry, gravity roller, live roller, overhead, pallet,  
skate, slot), Elevators (barrel, package), Rollers  
(conveyors), Tables (conveying).

*Branch Office*  
Colo., Denver—224 W. Alameda Ave.

**ALVEY-FERGUSON CO., THE, WEST  
COAST, INC.,** 1127 E. Orange, P. O.  
Box 136, Monrovia, Calif.

Conveyors (apron, automatic, bag, bale, belt, chain  
or link, continuous flow, drag, flight, foundry,  
gravity roller, live roller, overhead, pallet, portable,  
skate, slot, trolley, vertical, special and other),  
Elevators, Rollers, Tables, Trolleys.

Using this directory can save  
you time and money because  
manufacturers listed all have  
Western sales and engineering  
representation.



## AMERICAN CHAIN — AUSTIN-WESTERN

### AMERICAN CHAIN & CABLE CO., 929 Connecticut Ave., Bridgeport 2, Conn.

Chains, Cranes (hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, "I" beam overhead, monorail overhead), Hoists (chain, electric, hand, portable, traveling), Slings (chain, wire rope), Wire Ropes.

See advertisement on page 192

#### Branches

Calif., Los Angeles—6800 E. Acero St.  
Calif., San Francisco—590 Tennessee Ave.

### AMERICAN CHAIN & CABLE CO., WRIGHT HOIST DIV., see WRIGHT HOIST DIV.

### AMERICAN CRANE & HOIST CORP., 8660 So. Atlantic Blvd., South Gate, Calif.

Cranes (double beam overhead, electric and electric traveling overhead, hand power traveling overhead, "I" beam overhead, monorail overhead), Trolleys.

See advertisement on page 162

### AMERICAN ENGINEERING CO., Wheatshaf Lane and Sepviva St., Philadelphia 37, Pa.

Hoists (electric, monorail), Winches and Windlasses.

#### Representatives

Calif., San Francisco—Elder & Co., 390 Seventh St. UN 1-5480  
Ore., Portland—F. E. Bennett Co., 426 N.W. Sixth Ave. CA 8-2321  
Tex., El Paso—E. D. Flournoy Co., 1224 E. Missouri St. IS 3-5531  
Utah, Salt Lake City—Sales Engineering Co., 526 W. Eighth St. SE 5-1162

### AMERICAN HOIST & DERRICK CO., 63 So. Robert St., St. Paul 1, Minn.

Chain fittings, Cranes (gantry, crawler, truck, locomotive), Hoists (crane, derrick, drum, electric, gasoline, traveling), Loaders and Unloaders (portable, self-propelled), Sling fittings, Winches and Windlasses, Wire Rope Fittings.

#### Branch Office

Wash., Seattle—4915 Third Ave., So. MO 9300  
Representatives  
Ariz., Phoenix—Lee Redman Equipment Co., 610 So. 19th Ave. AL 8-3794  
Calif., Los Angeles—Cook Bros. Construction Machinery, 3332 San Fernando Rd. CL 6-3151  
Calif., Oakland—Cook Bros. Truck & Equipment, 416 E. Eighth St. GL 1-0258  
Colo., Denver—Constructors Equipment Co., Inc., 3611 Walnut St. AL 5-3474  
Idaho, Boise—Sawtooth Co., 1115 Grove St. Phone 3-3603  
Mont., Billings—Hall-Perry Machinery Co., 902 Central Ave. Phone 6-6864  
N. Mex., Albuquerque—Contractors' Equipment Co., Inc., 707 No. Broadway. Phone 3-3565  
Ore., Portland—Contractors Equipment Corp., 2727 S.E. Union Ave. BE 5-4131  
Utah, Salt Lake City—Archer Tractor & Equipment, 1118 So. Main St. EM 3-3821  
Wash., Seattle—Andrews Machinery of Washington, Inc., 3633 Marginal Way. SE 7121  
Wash., Spokane—Ferris Equipment Co., Inc., E. 3823 Trent Ave. KE 5-1551

### AMERICAN LIQUID GAS CORP., 1109 Santa Fe Ave., Los Angeles 21, Calif. TR 0845

LP-gas carburetion equipment, LP-gas plants, LP-gas service stations.

#### Branch Office

Calif., San Francisco—Hearst Bldg. GA 1-2010

See advertisement on page 94

### AMERICAN MACHINE & FOUNDRY CO., 261 Madison Ave., New York, N. Y.

Lewerator work positioners (self-leveling).

#### Representatives

Calif., Los Angeles—Harron, Richard & McCone, 3850 Santa Fe Ave.  
Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave., So.

### AMERICAN METAL PRODUCTS CO., 5959 Linsdale Ave., Detroit 4, Mich.

Bottomless pallet racks, ratchet adjustable racks, skid racks, die racks, drum and barrel racks, tiering racks and coil racks.

#### Representatives

Ariz., Phoenix—D. C. Robinson Co., P. O. Box 3825. AP 8-9364  
Calif., Los Angeles—Green-Penny Co., 421 E. Washington Blvd. RI 8-1191  
Calif., Los Angeles—McKinley Equipment Co., 1557 Esperanza. AN 9-0567  
Calif., San Francisco—Hamerslag Equipment Co., 110 Freeway Blvd. JU 3-5757  
Colo., Denver—Plant Equipment Co., 1400 Market St. AL 5-5411  
Colo., Denver—Sparkman-Barker Co., 559 Santa Fe Dr. KE 4-1328  
Ore., Portland—McMahon Brothers, Inc., 204 Fitzpatrick Bldg. CA 6-6878  
Utah, Salt Lake City—Sparkman-Barker Co., 1181 Sherman  
Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave. So. MU 3388

### AMERICAN MONORAIL CO., 13117 Athens Ave., Cleveland, Ohio

Conveyors (continuous flow, foundry, overhead, trolley), Cranes (gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, monorail overhead), Hoists (monorail), Scales (monorail), Tractors (monorail), Trolleys, Continuous trolley driven conveyors manufactured by Landoli Conveyor Co., Subsidiary (same Western distribution).

See advertisement on page 159

#### Branch

Calif., Los Angeles—4645 Telegraph Rd. AN 9-7386

#### Representatives

Ariz., Phoenix—Kistler Industrial Service, P. O. Box 1204. AL 2-7217  
Calif., San Francisco—Grover Engineers, 44 McLea Ct. MA 1-2668  
Ore., Portland—McMahon Brothers, Inc., 204 Fitzpatrick Bldg., CA 6-6878  
Utah, Salt Lake City—Modern Equipment Co., 52 W. Second St. So. Phone 9-2171  
Wash., Seattle—F. T. Crowe & Co., 325 Second Ave. W. AL 8844

### AMERICAN PULLEY CO., 4200 Wis- sahickon Ave., Philadelphia 29, Pa.

Bolting (V-belts), Pulleys (conveyor, flat belt, V-belt), Trucks (portable electric, portable hand), Trucks (bag, barrel, drum, die handling, dolly, elevating or lifting, factory and warehouse, hand, hand-lift, hand-electric lift, hand-mechanical lift, hydraulic lift, packing house, pallet, paper roll, sheet handling, skid handling, straddle, electric tiering, platform), Wheels (general industrial, hand truck, rubber tired), Barrel cradles.

See advertisement on page 39

#### Branches

Calif., Oakland—G. P. Weishaar, 800 51st Ave. AN 1-9681, ANI-9682  
Wash., Seattle—H. F. Adams, 911 Western Ave. MU 0117

### AMERICAN RUBBER MFG. CO., 1145 Park Ave., Oakland 8, Calif.

Bolting (conveyor, elevator, endless), Belt Fasteners and Belt Lacing.

#### Branches

Calif., Los Angeles—2216 S. Hill St. RI 7-0689  
Calif., Oakland—1145 Park Ave. OL 2-0800  
Idaho, Boise—1116 No. 18th St. Phone 4-2168  
Ore., Portland—Dekum Bldg. CA 2-1708  
Utah, Midvale—136 E. 7720 So. AM 5-2765  
Wash., Seattle—Smith Tower. SE 1727

### AMERICAN SISALKRAFT CORP., 55 New Montgomery St., San Francisco, Calif. GA 1-7106

Waterproof, reinforced papers for industry, building and farm use. Packaging papers, plastics and outdoor protective materials. Moisture barrier materials.

#### Branch Offices

Calif., Los Angeles—4632 W. Washington Blvd. WE 1-1051  
Ore., Portland—1238 N.W. Glisan. CA 8-0871  
Wash., Seattle—4803 Greenwood Ave. SU 1788  
Represented by distributors in all principal Western cities

### ANTHONY CO., Streator, Ill.

Loaders (tailgate), Lift gates (motor trucks).

#### Representatives

Ariz., Phoenix—Auto Safety House, 4348 E. Washington  
Calif., Los Angeles—Lambert Co., 1202 E. Olympic Blvd.  
Calif., Oakland—C & C Trailer & Body Co., 8855 San Leandro St.  
Colo., Denver—Winter-Weiss Co., 2201 Blake St.  
Hawaii, Honolulu—Aloha Motors, P. O. Box 2058  
Idaho, Boise—Dyson's Truck Equipment Co., Highway 44 and Pierce Park Lane, Rt. 1  
Mont., Billings—Seitz Distributing Co., 505 No. 25th St. Phone 2-2103  
N. Mex., Albuquerque—Winter-Weiss Co., 6139 No. Second St.  
Ore., Portland—Northwest Truckstell Sales, Inc., 835 S. E. Hawthorne Blvd.  
Utah, Salt Lake City—Utah Truck Equipment Co., 1045 So. Main St.  
Wash., Seattle—Nelson Truck Equipment Co., 128 Westlake Ave. No.  
Wash., Spokane—Critzler Equipment Co., E. 3804 Front St.

### ARNOLD CORP., Argonne Rd., War- saw, Ind.

Lifting Bars, Roller Dollies, Trucks (hand lift).

#### Representatives

Calif., Garden Grove—Fred Barg, P. O. Box 321  
Calif., San Francisco—Arthur H. Collbran, 25 California St.  
Wash., Seattle—Bruce P. Rutherford, 1954 First Ave. So.

### ARO EQUIPMENT CORP., Enterprise & Trevitt Sts., Bryan, Ohio

Hoists (air).

#### Branch

Calif., Los Angeles—Aro Equipment of Calif., 3141 So. Grand Ave. RI 7-7531  
Representatives  
Calif., San Francisco—Cy Erb, 221 11th St. HE 1-6246  
Colo., Denver—Edward P. Muller, 784 Jersey St. FR 7-5571  
Wash., Seattle—Ray H. Weigel, No. Two Hanford St. SE 1620

### ARROW PRODUCTS, INC., So. Ferry St., Grand Haven, Mich.

Conveyors (belt, gravity roller, live roller, portable, skate), Rollers (conveyor), Ladders (safety step).

#### Representatives

Ariz., Phoenix—L. J. Clarke & Co., 18 E. Lincoln St.  
Ariz., Tucson—L. J. Clarke & Co., 2625 No. First Ave. Phone 4-6233  
Calif., Los Angeles—M. E. Canfield Co., 419 E. Third St. MA 6-6606  
Calif., Oakland—E. C. Buehrer Assoc., Inc., 253 Fourth St. TE 6-2082  
Colo., Denver—Joe Courney Equipment Co., 1243 Walnut St. MA 6976  
Ore., Portland—Oregon Handling Equipment Co., 2949 N. W. St. Helens Rd. CA 8-4196  
Utah, Salt Lake City—Equipment Supply Co., 16 Post Office Pl. EM 3-9074  
Wash., Seattle—Cascade Handling Equipment Co., 417 Battery St. MA 7069

### ASHWORTH BROS., INC., P. O. Box 278, Winchester, Va.

Metal process belts, woven wire and flat wire designs.

#### Representatives

Calif., Los Angeles—Kaye Pacific Wire Works, 5340 E. Harbor St. RA 2-4814  
Wash., Seattle—Pacific Wire Works Co., 4515 Sixth Ave., So. SE 4457

### AUSTIN-WESTERN DIV., BALDWIN- LIMA-HAMILTON CORP., 601 No. Farnsworth Ave., Aurora, Ill.

Cranes (yard), Hoists (crane, gasoline, hydraulic, portable, traveling), Loaders, Magnets.

#### Branch

Calif., So. San Francisco—149-151 So. Linden Ave. JU 8-5888

#### Representatives

Ariz., Phoenix—Shriver Machinery Co., 1756 Grand Ave. AL 2-2356



## AUTOETTE — BAUGHMAN

Calif., Los Angeles—Smith-Booth-Usher Co., 2001 Santa Fe Ave. TR 6911  
 Calif., San Francisco—Edward R. Bacon Co., Folsom and 17th St. HE 1-3700  
 Colo., Denver—MacDonald Equipment Co., 5300 Colorado Blvd. AM 6-2641  
 Idaho, Boise—Engineering Sales Service, Inc., 410 Capitol Blvd. Phone 3-2535  
 Mont., Billings—Hall-Perry Machinery Co., 902 Central Ave. Phone 6-6864  
 Mont., Butte—Hall-Perry Machinery Co., 812 E. Iron St. Phone 2-2523  
 Mont., Great Falls—Hall-Perry Machinery Co., 1116 Fifteenth St. No. Phone 2-8521  
 Mont., Missoula—Hall-Perry Machinery Co., 127 E. Main St. Phone 9-2617  
 Nev., Reno—C. D. Roeder Equipment Co., 860 W. Third St. Phone 2-1852  
 N. Mex., Albuquerque—N. C. Ribble Co., 1304 Fourth St. N.W. Phone 3-8733  
 Ore., Portland—Columbia Equipment Co., 1240 S.E. 12th Ave. BE 2-7148  
 Utah, Salt Lake City—Western Machinery Co., 2300 So. Main St. IN 6-8668  
 Wash., Seattle—Columbia Equipment Co., 5080 First Ave. So. LA 1530  
 Wash., Spokane—Columbia Equipment Co., No. 1007 Freya St. KE 4-1551  
 Wyo., Casper—Kereml Tractor & Equipment Co., 414 So. Elm St. Phone 3-6631  
 Wyo., Cheyenne—Kereml Tractor & Equipment Co., 902 W. 22nd St. Phone 8-8923

### AUTOETTE, DIV., WAYNE MFG. CO., 1201 E. Lexington Ave., Pomona, Calif.

Carts, Trucks (industrial electric, gas-electric, gasoline).

#### Representatives

Ariz., Phoenix—Mid-State Supply Co., 2246 E. McDowell Rd.  
 Calif., Bakersfield—Motor Truck Sales Service, P. O. 672  
 Calif., Fresno—Fresno Autoette Sales, 3038 No. Fruit Ave.  
 Calif., Glendale—Frankson Scooter Mart, 1032 Brand Blvd.  
 Calif., Long Beach—Associated Rental Service, Inc., 521 American Ave.  
 Calif., North Hollywood—Martin Pollard, 5430 Lankershim Blvd.  
 Calif., Oakland—Industrial Truck Sales, 209 Brush St.  
 Calif., Pasadena—Steve Salislian, 250 No. Lake St.  
 Calif., Pomona—R&C Motors, 704 W. Holt Ave.  
 Calif., San Bernardino—Lloyd's Trailer & Supply Co., 207 E. Baseline  
 Calif., San Diego—The Scotsman Ltd., 4130 E. El Cajon Blvd.  
 Calif., Santa Ana—Dutton's Autoette Sales & Service, 101 No. Broadway  
 Calif., Santa Barbara—Electronic Enterprises Inc., 3130 State St.  
 Calif., Santa Cruz—Autoette of Santa Cruz, 890 38th St.  
 Calif., Santa Monica—Calif. Sick Room & Oxygen Service, 2500 Santa Monica Blvd.  
 Calif., Ventura—Darden & Randall, 52 E. Main St.  
 Colo., Denver—Iver J. Esbenson Co., 1725 E. 17th Ave.  
 Idaho, Pocatello—C. Ed Flandro, Inc., Fifth and Lewis  
 Mont., Great Falls—Lease's Garden Center, 810 12th St. No.  
 N. Mex., Albuquerque—John McCormack, Inc., 1730 Lomas Blvd.  
 Ore., Portland—Braley & Graham, 1411 W. Burnside  
 Wash., Seattle—B. F. Shearer Co., 2318 Second Ave.  
 Wash., Spokane—Gil Ride Co., P. O. Box 1212  
 Wyo., Laramie—Knight Motors, 758 No. Third

### AUTOMATIC TRANSPORTATION CO., 101 W. 87th St., Chicago 20, Ill.

Trucks (bag, barrel, drum, die handling, elevating or lifting, factory and warehouse, electric fork, gasoline fork, motorized hand, industrial, hand-electric lift, hydraulic lift, power-driven lift, packing house, pallet, paper roll, sheet handling, skid handling, straddle, electric tiering).

See advertisement on page 61

#### Representatives

Ariz., Phoenix—Superior Equipment Co., 2402 So. 19th Ave. AL 3-2116  
 Ariz., Tucson—Superior Equipment Co., 2901 So. Fourth Ave. MA 2-1139  
 Calif., Huntington Park—L. J. Lutz Co., 7962 Salt Lake Ave. KI 5102  
 Calif., Oakland—E. C. Buehrer Associates, 253 Fourth St. TE 6-2082  
 Colo., Denver—Hahn Equipment Co., 1795 Sheridan Blvd. BE 7-0433

Ore., Portland—Hallidie Machinery Co., 1915 N.E. Union Ave.  
 Utah, Salt Lake City—Equipment Supply Co., 16 Post Office Place. Phone 3-9074  
 Wash., Seattle—Hallidie Machinery Co., 210 Hudson St. LA 9520  
 Wash., Spokane—Hallidie Machinery Co., 2815 Division. EM 7131

### AUTO SHEET METAL WORKS, 735 E. Gage Ave., Los Angeles, Calif.

Boxes for shipping (corrugated steel), Carts (hand, push), Pallets (steel), Racks (pallet storage), Tables (portable), Trucks (box type, dolly, packing house, paper roll, sheet handling, skid handling), Galleys, Cabinets (galley), Special steel fabrication.

#### Branch

Calif., Los Angeles—735 E. Gage Ave. AD 3-4395  
 Representatives  
 Calif., Los Angeles—M. E. Canfield Co., 419 E. Third St. MA 6-6606  
 Calif., Los Angeles—Irving G. King Co., 821 So. San Mateo. TU 8176  
 Calif., Los Angeles—Robco, Inc., 5348 Jillion St. AN 5126  
 Calif., San Francisco—Hamerslag Equipment Co., 45 Elmira St. JU 7-1257  
 Wash., Seattle—Norwest Co., 330 Second Ave. W. AL 8442

### BAKER-RAULANG CO., A SUBSIDIARY OF OTIS ELEVATOR CO., 1250 W. 80th St., Cleveland, Ohio

Cranes (yard, truck, tractor), Trucks (diesel fork, electric fork, gasoline fork), Side-loading fork unit.

See advertisement on page 5

#### Representatives

Calif., Los Angeles—Glenn A. Harshbarger Co., 588 Mateo St. MI 7491  
 Calif., San Francisco—Elder & Co., 333 Seventh St. UN 1-5480  
 Colo., Denver—Gunderson-Taylor Machinery Co., 1237 Shoshone. TA 5-1327  
 Wash., Seattle—Mechanical Handling Co., 1401 W. Garfield St. GA 0200

### BALDWIN-LIMA-HAMILTON CORP., So. Main St., Lima, Ohio

Lima shovels, cranes, draglines, pulshovels.

#### Branches

Calif., La Mirada—14120 E. Rosecrans Ave. TO 3-5761  
 Calif., South San Francisco—149 S. Linden Ave. JU 3-5888 and JU 3-5889  
 Wash., Seattle—1932 First Ave. So. SE 5420

#### Representatives

Ariz., Phoenix—Shriver Machinery Co., 1756 Grand Ave. AL 2-2356  
 Calif., Eureka—McGaraghan Supply Co., 529 Broadway  
 Calif., Los Angeles—Smith-Booth-Usher Co., 2001 Santa Fe Ave. TR 6911  
 Calif., Oakland—Bay Cities Equipment, Inc., 2792 Cypress St. TW 3-8313  
 Calif., Redding—Cascade Industrial Supply, Inc., Hwy. 99 So. Phone 1195  
 Colo., Denver—Farris-Mortiz Equipment Co., 1554 Wazee St. AC 2-3873  
 Idaho, Boise—Feenaughty Machinery Co., 600 Front St. Phone 6-6864  
 Mont., Billings—Hall-Perry Machinery Co., 902 Central Ave. Phone 6-6864  
 Mont., Butte—Hall-Perry Machinery Co., 812 E. Iron St. Phone 2-2323  
 Mont., Great Falls—Hall-Perry Machinery Co., 1116 Fifteenth St. No. Phone 2-8521  
 N. Mex., Albuquerque—N. C. Ribble Co., 1304 No. Fourth St. Phone 3-3733  
 Ore., Portland—Feenaughty Machinery Co., 112 S.E. Belmont St. BE 2-2186  
 Utah, Salt Lake City—Heiner Equipment & Supply Co., 501 W. Seventh St.  
 Wash., Spokane—Modern Machinery Co., E. 4412 Trent Ave. KE 9353

### BALDWIN-LIMA-HAMILTON CORP., see also AUSTIN-WESTERN DIV.

### BALLYMORE CO., THE, Lincoln and Garfield Aves., West Chester, Pa.

Ladders (safety-step), Platforms (hydraulic lift), Work platforms.

#### Representative

Calif., South San Francisco—Hamerslag Equipment Co., 110 Freeway Blvd. JU 6-1789

### BARBER-GREENE CO., 400 No. Highland Ave., Aurora, Ill.

Beltting (conveyor), Conveyors (belt, portable), Loaders (portable, self-propelled).

#### Branch

Calif., San Mateo—318 S. B St. DI 3-5823

#### Representatives

Ariz., Phoenix—Road Machinery Co., 716 S. Seventh St. AL 8-7981  
 Calif., Los Angeles—Santa Fe Equipment Co., Inc., 3000 Santa Fe Ave. LU 1-9177  
 Calif., San Francisco—Coast Equipment Co., 444 Eighth Ave. MA 1-5740  
 Calif., San Francisco—Mines Engineering and Equipment Co., 454 Montgomery St. SU 1-7224  
 Colo., Denver—Ray Corson Machinery Co., 356 Kalmath St. MA 0165  
 Idaho, Boise—Engineering Sales Service, Inc., 410 Capitol Blvd. Phone 3-2535  
 Mont., Billings—Western Construction Equipment Co., 505 No. 24th St. Phone 9-5501  
 Nev., Reno—Sierra Machinery Co., 307 Morrill Ave. Phone 2-6981  
 N. Mex., Albuquerque—Contractors Equipment and Supply, 707 N.E. Broadway. Phone 3-3565  
 Ore., Portland—Columbia Equipment Co., 1240 S.E. 12th Ave. EA 7148  
 Utah, Salt Lake City—Kimball Equipment Co., 222 W. 17th St. Phone 6-6775  
 Utah, Salt Lake City—Mine and Smelter Supply Co., 121 W. Second St. Phone 3-2791  
 Wash., Seattle—Columbia Equipment Co., 5080 First Ave. So. LA 1530  
 Wash., Spokane—Columbia Equipment Co., 2604 Lamont St. MA 3459  
 Wyo., Cheyenne—Kereml Tractor and Equipment Co., 902 W. 22nd St. Phone 8923

### BARRETT-CRAVENS CO., 630 Dun-dee Rd., Northbrook, Ill.

Elevators (barrel, package, portable tiering, other), Hoists (electric, hand), Racks (pallet, storage, other), Stackers (portable electric, portable hand), Tables (elevating), Tractors (electric warehouse), Trucks (bag, barrel, drum, die handling, dolly, elevating or lifting, factory and warehouse, electric fork, hand, industrial, hand lift, hand-electric lift, hand-mechanical lift, motorized hand, hydraulic lift, power-driven lift, pallet, paper roll, sheet handling, skid handling, straddle, electric tiering, other).

#### Representatives

Ariz., Phoenix—Kistler Industrial Service Co., 902 So. Central Ave. AL 2-7217  
 Calif., Fresno—Valley Forklift Rental & Equipment Co., 2424 So. Railroad Ave. Phone 8-2674  
 Calif., Los Angeles—Irving G. King & Co., 821 Mateo St. TU 3176  
 Calif., South San Francisco—Hamerslag Equipment Co., 110 Freeway Blvd. JU 6-1789  
 Colo., Denver—McDonald-Hunt Scale & Supply Co., 1540 Wazee St. AC 2-5651  
 Ore., Portland—F. E. Bennett Co., 426 N.W. Sixth Ave. CA 3-2321  
 Utah, Salt Lake City—Arnold Machinery, 433 W. Second St. Phone 22-5631  
 Wash., Seattle—Materials Handling Equipment Co., 2963 First Ave. So. SE 0997  
 Wash., Seattle—Masterston's Equipment Supplies, Inc., 2720 Westlake. No. GA 0245

### BASSICK CO., 437 Howard St., Bridgeport, Conn.

Casters, Wheels (general industrial, hand truck, rubber tired).

#### Branches

Calif., South San Francisco—124 So. Airport Blvd. JU 3-1740  
 Calif., Vernon—3520 Fruitland Rd. LO 8-5538  
 Colo., Denver—L. G. Rathbun, 1414 16th St. TA 3762  
 Utah, Salt Lake City—E. C. Coffin Co., 1661 48th So. St.

### BATHEY MFG. CO., 100 So. Mill St., Plymouth, Mich.

Bins, Boxes (tote), Hoppers, Racks (pallet, storage).

#### Representatives

Calif., Los Angeles—McKinley Equipment Corp., 1557 Esperanza. AN 3-4203  
 Calif., Oakland—Green-Penny Co., 2211 San Pablo Ave. GL 1-8555

### BAUGHMAN MANUFACTURING CO., INC., Shipman Rd., Jerseyville, Ill.

Conveyors (belt, bucket, foundry, portable, screw), Elevators (belt, bucket), Bulk feed bodies.

#### Representatives

Ariz., Marana—Marana Equipment, Inc.  
 Ariz., Phoenix—Guerin Implement Co., 1401 So. Central Ave.  
 Ariz., Phoenix—Superior Equipment Co., 2402 So. 14th Ave. AL 3-2116  
 Ariz., Phoenix—Western Machinery Co., 124 E. Buchanan. Phone 3-4101  
 Calif., Los Angeles—Hart Conveyor Co., 1415 Mateo St. TR 6408  
 Calif., Modesto—Hengst & Curran, P. O. Box 323  
 Calif., Riverside—Hudson Sales Co., 4905 Arlington Ave. Phone 1-1637



Calif., Turlock—Lakeside Industries, Hwy. 99, So. Phone 2-1386  
 Colo., Denver—Gunderson-Taylor Machinery Co., 1237 Shoshone St. TA 5-1327  
 Idaho, Boise—Starline Equipment Co., 503 So. 16th St. Phone 4-3321  
 Mont., Billings—Industrial Equipment Co., 415 No. 27th St.  
 Mont., Kalispell—Treasure State Equipment Co. Phone 155-L  
 Ore., Amity—Burlingham Meeker Co.  
 Tex., El Paso—Border Machinery Co., 1710 E. Paisano Dr. Phone 3-7565  
 Utah, Salt Lake City—Lund Machinery Co., 49 So. Second W. St. Phone 3-8828  
 Utah, Salt Lake City—W. H. Pingree Co., 461 E. Second So. St. EM 3-6732  
 Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave., So. MU 3388  
 Wash., Seattle—Thurlow-Moe, Inc., 2405 11th St., S.W. EL 5743  
 Wyo., Casper—Studer Tractor & Equipment Co., 2350 E. Yellowstone Hwy. Phone 2-5381

**A. J. BAYER CO., 2300 E. Slauon Ave., Los Angeles 58, Calif., LU 5-2171**

Conveyors (apron, automatic, bag and bale, belt, bucket, chain or link, continuous flow, drag, flight, foundry, gravity roller, live roller, overhead, skate, etc.), trolley, vertical, Dock Boards, Elevators (barrel, package, etc.), Pulleys, Conveyor Rollers, Conveying Tables, Conveyor Wheels

*Branch Office*  
 Calif., Oakland—1131 Sixth Ave. TE 4-8571  
 Ore., Portland—80 S.E. Taylor. BE 6-6063

**BEACON MACHINERY, INC., Box 188, East St. Louis, Ill.**

Automatic pallet loaders, unloaders, stackers and dispensers; Cargulated box compressors; Dock boards; Hydraulic bridge-lifts; Hydraulic hoists; Hydraulic jacks.

*Representatives*  
 Calif., Los Angeles—Robco Div., Robert H. Braun Co., 5348 Jilison St. AN 8-5126  
 Calif., South San Francisco—Hammerslag Equipment Co., 110 Freeway Blvd. JU 6-1789  
 Wash., Seattle—Materials Handling Equipment Co., 2963 First St. So. SE 0997

**BEAM PRODUCTS MFG. CO., 3040 Rosslyn St., Los Angeles 65, Calif. CH 5-5791**

LP gas conversion equipment.

*See advertisement on page 98*

*Branch Office*  
 Ore., Portland 66—9001 S.E. 82nd St. PR 1-5476  
*Representatives*  
 Calif., Anaheim—Harry I. Horn Co., 1251 No. Palm  
 Calif., Modesto—J. S. West & Co., 709 Ninth St.  
 Calif., Los Angeles—Butane Carburetor Service, 1206 E. Sixth St. VA 7771  
 Calif., Oakland—Electric Service Co., 643 E. Eighth St. TE 4-9944  
 Calif., Ontario—Suburban Gas Service, 643 E. Main St.  
 Calif., San Francisco—Calor Gas Equipment Co., 114 Sansome St.  
 Calif., San Jose—Hennessey Butane, 2030 So. First St.  
 Calif., Thermal—Thermal Gas, Inc., Hwy. 111, P. O. Box 817  
 Colo., Denver—Gas Equipment Co., 1485 Brentwood  
 Idaho, Boise—Liquefied Gas Corp., P. O. Box 1958  
 N. Mex., Albuquerque—Navajo Gas Co., 5018 Second Ave., N.W.  
 Ore., Albany—Albany Propane Gas, 828 E. Eighth St.  
 Ore., Eugene—Magic Gas Co., 2810 W. Sixth St.  
 Ore., Portland—Multnomah Fuel Co., 4700 S.W. MacAdam  
 Wash., Lynden—Northwest Propane Sales Co., 512 Third St.

**BELL & GOSSETT CO., see MARLOW PUMPS, A DIV.**

**BELT CORP., 5314 Mill St., Orient, Ohio**

Conveyors (bag and bale, belt, chain or link, flight, portable).

*Representatives*  
 Ariz., Phoenix—Overstreet & Kininmonth, P. O. Box 2406  
 Calif., Pomona—Keville Industrial Service, 1590 Ganesha Pl.

Colo., Denver—Murray Sales Co., 16 Wazee St. Mont., Billings—Power Transmission Equipment, 20 No. 33rd St.  
 Tex., San Antonio—S. Rieckes & Sons, 1903 Flore St.  
 Utah, Salt Lake City—Equipment Supply Co., 16 Post Office Pl.  
 Wash., Seattle—Thurlow-Moe, Inc., 2405 Eleventh Ave., S.W.

**BEMIS BRO. BAG CO., 408 Pine St., P. O. Box 113, St. Louis 2, Mo.**

Bags (burial, canvas, multi-wall, polyethylene, shipping), Packaging machinery, Paper specialties.

*Branches*  
 Ariz., Phoenix—2202 W. McDowell Rd. AL 2-2222  
 Calif., San Francisco—1000 Sansome St. GA 1-2383  
 Calif., Wilmington—920 E. Pacific Coast Hwy. TE 5-3111  
 Colo., Denver—426 Guaranty Bank Bldg. TA 5-6348  
 Idaho, Boise—204 McCarty Bldg. Phone 2-2192  
 Utah, Salt Lake City—1101 Walker Bank Bldg., Phone 2-5591  
 Wash., Seattle—65 Atlantic St. EL 0660  
 Wash., Vancouver—1401 W. 26th St. OX 4-1523

**BERGER ENGINEERING CO., 3236 16th Ave. S. W., Seattle 4, Wash. MU 4280**

Cranes (gantry, jib, double beam overhead, electric and electric traveling overhead), Hoists (crane, derrick, drum, electric), Winches.

**BETHLEHEM PACIFIC COAST STEEL CORP., 20th & Illinois Sts., San Francisco 19, Calif.**

Wire Rope, Wire Rope Slings.

*Sales Offices*  
 Ariz., Phoenix—213 No. 1st Ave. AL 4-7502  
 Calif., Los Angeles—6000 So. Boyle. LO 8-3041  
 Ore., Portland—1010 S.W. 14th Ave. CA 2-1841  
 Wash., Seattle—3651 E. Marginal Way. AV 1100  
 Wash., Spokane—West 725 Sprague. TE 8-3671

**BLACKMAN PLASTICS, 5883 Blackwelder St., Culver City, Calif. TE 0-4821**

Baskets (plastic), Boxes, tote, Carts (box truck), Racks (plastic), Trucks (box type).

**BLACKMER PUMP CO., 1809 Century S. W., Grand Rapids 9, Mich. Pumps (liquid handling).**

*Branch*  
 Calif., San Francisco—605 Third St. YU 2-3223

**BODINSON MFG. CO., 2401 Bayshore Blvd., San Francisco 24, Calif. JU 5-9641**

Bins, Conveyors (apron, belt, bucket, drag, flight, portable), Elevators (barrel, package, belt, bucket), Pulleys (conveyor), Stackers (portable electric), Tables (conveying).

**BOMAN CO., THE, 3316 E. Olympic Blvd., Los Angeles 23, Calif. AN 9-0761**

Conveyors (gravity roller, skate), Cranes (yard, truck, tractor), Elevators (portable lifting), Hoists (chain), Rollers (conveyor, other), Stackers (portable electric, portable hand), Tires (industrial truck and trailer), Trailers (factory and warehouse), Trucks (bag, barrel, drum, elevating or lifting, electric fork, gasoline fork, hand, motorized hand, industrial, gasoline lift, hand lift, hand-mechanical lift, hydraulic lift, power-driven lift, pallet, paper roll, skid handling), Wheels (conveyor, hand truck, rubber tired, tractor, trailer).

*See advertisement on page 182*

**BOND FOUNDRY & MACHINE CO., Manheim, Pa.**

Truck casters, Wheels, Hand trucks, Steel bench legs, Mechanical power transmitting equipment.

*Branch Office*  
 Calif., Los Angeles—1044 W. 75th St. PL 8-6478  
*Representatives*  
 Calif., Los Angeles—Associated Gear & Machinery Co., 829 Santa Fe Ave.  
 Calif., Los Angeles—Utilities Supply Co., 1736 E. 15th St.

Calif., San Francisco—Marshall-Newell Supply Co., Spear and Mission Sts.

**BORG WARNER CORP., see INDUSTRIAL CRANE & HOIST, INDUSTRIAL PRODUCTS DIV., see also INGERSOLL KALAMAZOO DIV.**

**BORROUGHS MFG. CO., 3002 No. Burdick St., Kalamazoo, Mich. Bins, Racks (storage), Shelving.**

*See advertisement on page 111*

*Representatives*  
 Calif., Los Angeles—Hart-Cobb-Carley, 2439 Yates Ave.  
 Calif., Los Angeles—Wayne Journeigan & Associates, 1406 So. Grand Ave. RI 8-6191  
 Calif., Oakland—Wm. A. Gore, 1834 Adeline St. TW 3-7233  
 Calif., Sacramento—Paul W. Roeder Co., P. O. Box 1552, 1228 "H" St., Rear. GI 8-8559, GI 8-8550  
 Colo., Denver—Sparkman-Barker, 550 Santa Fe Drive. KE 4-1323  
 Wash., Seattle—Wm. A. Gore, 1016 First Ave., So. SE 1966

**BOSWORTH MFG. CO., Mills Rd., Avon, Ohio**

Conveyors, (continuous flow, drag, flight, foundry, portable, vertical, special and other).

*Representatives*  
 Colo., Denver—Murray Sales Co., 16 Wazee Market  
 Mont., Billings—Lefter & Wyomont Supply, 234 Stapleton Bldg.  
 Mont., Missoula—Missoula Mercantile Co.  
 Ore., Portland—Oregon Handling Equipment, 2949 N.W. St. Helens Rd.  
 Utah, Salt Lake City—Arnold Machinery Co., 433 W. Second So. St.  
 Utah, Salt Lake City—Equipment Supply Co., 16 Post Office Pl.  
 Wash., Seattle—Nelson Truck & Equipment, 128 W. Lake No.  
 Wash., Seattle—K. O. Pearson, 7202 Rainier Ave.

**W. H. BRADY CO., 727 W. Glendale Ave., Milwaukee 12, Wis.**

Tape (printed roll), Markers (individual self-sticking numbers and letters).

*Representatives*  
 Ariz., Phoenix—Graybar Electric Co., 434 W. Madison St. AL 3-6131  
 Calif., Fresno—Graybar Electric Co., 101 Van Ness Ave. FR 2-4175  
 Calif., Long Beach—Graybar Electric Co., 300 W. 16th St. Phone 70-2911  
 Calif., Los Angeles—Electrical Specialty Co., 2820 E. 12th St. MI 1907  
 Calif., Los Angeles—Graybar Electric Co., 210 Anderson St. AN 3-7282  
 Calif., Oakland—Graybar Electric Co., 1911 Union St. GL 1-5451  
 Calif., Sacramento—Graybar Electric Co., 1900 Fourteenth St. GI 2-8976  
 Calif., San Bernardino—Graybar Electric Co., 655 H St. Phone 9-1051  
 Calif., San Diego—Graybar Electric Co., 720 State St. FR 1361  
 Calif., San Francisco—Electrical Specialty Co., 158-168 11th St. HE 1-5116  
 Calif., San Francisco—Graybar Electric Co., 1750 Alameda St. MA 1-5131  
 Calif., Santa Ana—Graybar Electric Co., 301 French St. KI 3-8309  
 Colo., Denver—Electrical Specialty Co., 1101 Stout St. CH 4588  
 Colo., Denver—Graybar Electric Co., 104 Wazee Market. TA 7116  
 Idaho, Boise—Graybar Electric Co., 1325 Idaho St. Phone 2-4501  
 Mont., Butte—Graybar Electric Co., 604 E. Aluminum St. Phone 3233  
 Ore., Eugene—Graybar Electric Co., 2180 Sixth Ave. W. Phone 4-2224  
 Ore., Portland 5—Electrical Specialty Co., 1224 S.W. Morrison. CA 7-3188  
 Ore., Portland—Graybar Electric Co., Park and Flanders Sts. BR 6641  
 Utah, Salt Lake City—Graybar Electric Co., 336 No. Third W. St. Phone 9-8771  
 Wash., Seattle—Graybar Electric Co., King and Occidental Sts. MU 0123  
 Wash., Seattle—Electrical Specialty Co., 2406 First Ave. So. EL 8061  
 Wash., Spokane—Graybar Electric Co., 1033 W. Gardner Ave. RI 3151  
 Wash., Tacoma—Graybar Electric Co., 2112 A St. MA 0164



## BRAINARD — CAMPBELL

### BRAINARD STEEL DIV. OF SHARON STEEL CORP., Griswold St., Warren, Ohio

Steel strapping, Strapping tools and accessories for packaging and carloading.

#### Representatives

Calif., Eureka—Eureka Boiler Works, Foot of "S" St. HI 3-1681  
Calif., Redding—Gerlinger Steel & Supply, 1527 Sacramento St. Phone 2330  
Calif., San Gabriel—Wes Bender Sales Co., 532 No. Alhambra. CU 3-6062  
Ore., Portland—Harmer Lumber, 1515 N.W. Hoyt St. CA 3-3117

### BRODERICK & BASCOM ROPE CO., 4203 Union Blvd., St. Louis 15, Mo. Slings (wire rope), Wire Rope.

#### Branches

Calif., Los Angeles—2441 Hunter St. TR 2857  
Calif., San Francisco—44 Potrero Ave. UN 3-3567  
Ore., Portland—1518 N.W. Marshall. CA 7-2244  
Wash., Seattle—655 Edmunds St. MA 1600

#### Representatives

(Represented by distributors throughout all Western states)  
Factory at Seattle, Wash.

### BRONCO PRODUCTS CO., 717 Stanford Ave., Los Angeles, Calif.

Deck boards (magnesium), Ramps (magnesium), Wheels (general industrial, hand truck, rubber tired, trailer).

See advertisement on page 176

#### Representatives

(Dealers and distributors in all major cities in the West.)

### BROOKS & PERKINS, INC., 1950 W. Fort St., Detroit 16, Mich.

Carts (hand and push), Racks (transfer), Trucks (bag, barrel, drum, box type, dolly, factory and warehouse, hand, pallet, platform, garment).

#### Branch Office

Calif., North Hollywood—11655 Vanowen. ST. 7-9665

#### Representatives

Ariz., Phoenix—Vetco Supply Corp., 710 So. 35th Ave.  
Calif., Los Angeles—Continental Metals, Inc., 7001 Santa Monica Blvd.  
Calif., Los Angeles—Davis Material Handling Co., 5649 Alhambra Ave.  
Calif., Los Angeles—McKinley Equipment Corp., 1557 Esperanza St.  
Calif., Los Angeles—Stanley E. Morris Co., 5584 Alhambra Ave.  
Calif., Oakland—Industrial Service Co., 616 McClary Ave.  
Colo., Denver—Armstrong Caster Co., 465 Santa Fe Dr.  
Ore., Portland—Oregon Handling Equipment, 2949 N.W. St. Helens Rd.  
Utah, Salt Lake City—Modern Equipment Co., 52 W. Second So. St.  
Wash., Seattle—Materials Handling Equipment, 2963 First Ave. So.  
Wash., Seattle—Secords Sales Co., 95 Connecticut St.

### BROWN RUBBER CO., 733 Stanford Ave., Los Angeles 21, Calif.

Belting (resurfacing, repair), Bumpers (rubber loading deck), Rollers, Slings (rubber covered), Tires (industrial truck and trailer), Wheels (conveyor, general industrial, hand truck, rubber tired, tractor, trailer).

#### Representatives

Calif., Fresno—Pope Tire Co., 1709 Broadway  
Calif., Los Angeles—Willumsen Tire Co., 718 E. Eighth St. MI 7545  
Calif., San Diego—Winn Supply Co., 256 Seventh Ave.  
Calif., Santa Barbara—Joe Dal Pozzo & Son, 530 Chapala St.  
Calif., Wilmington—John R. Ruby, Sr., 8342 Norton Ave., Lynwood  
Colo., Denver—Raymond F. Purinton, Jr., 1754 Blake St.

### BROWN TRAILERS, INC., E. 6328 Utah, Spokane, Wash. KE 2678

Boxes for shipping (aluminum), Boxes, tote (aluminum), Trailers (factory and warehouse, motor truck and tractor), Truck bodies (aluminum).

#### Representatives

Ariz., Phoenix—Superior Coach Sales & Service, 2928 E. Washington St.

Calif., Fresno—C & C Trailer & Body Co., P. O. Box 1781

Calif., Los Angeles—C & C Trailer & Body Co., 6100 E. Washington Blvd.

Calif., Oakland—C & C Trailer & Body Co., 8855 San Leandro St.

Calif., Pomona—Win Ward Co., P. O. Box 1329

Calif., San Diego—Win Ward Co., 2970 Main St.

Calif., West Sacramento—C & C Trailer & Body Co., P. O. Box 35

Colo., Denver—Brown Trailer Co., 2430 E. 40th Ave.

Colo., Denver—Woeber Auto Body & Mfg. Co., 4950 Jackson St.

Idaho, Boise—Hibbard Truck Body Works, Inc., 1028 LaPointe

Mont., Billings—Montana Trailer Sales & Equipment Co., P. O. Box 1702

Ore., Portland—Douglas Hood Co., 1947 N.W. Overton St.

Utah, Salt Lake City—Commercial Equipment Co., 320 W. 13th So. St.

Wash., Everett—Aalbu Bros. Body Co., 2927 Grand St.

Wash., North Bend—Quitslund Bodies & Equipment

Wash., Seattle—Allied Body Works, Inc., 2215 Fourth Ave. So.

Wash., Seattle—George Heiser Body Co., 1300 Dearborn

Wash., Seattle—J. E. Ochiltree Co., 628 Hanford St.

Wash., Seattle—Puget Sound Body Works, 1915 Fifth Ave., So.

Wash., Seattle—West Street Carriage Co., 680 Broad St.

Wash., Spokane—Leland Trailer Co., P. O. Box 217, Parkward Sta.

Wash., Tacoma—Holte Trucking Equipment, 2545 Jefferson St.

Wash., Union Gap (Yakima)—Mair & Son

Wash., Wenatchee—E. T. Pybus & Co.

### BRYANT MANUFACTURING CO., 2020 Montcalm, Indianapolis, Ind. LP-gas equipment.

#### Representatives

Ariz., Phoenix—Carns & Hoaglund Co., 420 No. 15th Ave. AL 8-2793

Colo., Denver—Bryant-Colorado Co., 1146 Walnut. KE 4-1368

Mont., Havre—O. B. Lund Co., 303 W. First. Phone 1335

Wyo., Casper—Earle G. Burwell, P. O. Box 525. Phone 2186

### BUCYRUS-ERIE CO., South Milwaukee, Wis.

Cranes (yard, truck, tractor).

#### Branches

Calif., Los Angeles—530 W. Sixth St. MI 9642

Calif., South San Francisco—120 Freeway St. PL 5-7435

Wash., Seattle—4447 White-Henry-Stuart Bldg. MA 6424

#### Representatives

Ariz., Phoenix—Road Machinery Co., 716 So. Seventh St.

Calif., Bakersfield—Crook Co., 2314 No. Chester

Calif., Berkeley—West Coast Engine & Equipment Co., 1077 Eastshore Hwy.

Calif., Los Angeles—Crook Co., 2900 Santa Fe Ave.

Colo., Denver—Colorado Builders Supply Co., 1534 Blake St.

Idaho, Boise—Intermountain Equipment Co., Broadway at Myrtle St.

Idaho, Pocatello—Intermountain Equipment Co., 210 No. Fourth Ave.

Mont., Billings—Great Northern Tool & Supply Co., P. O. Box 957

Mont., Kalispell—Westmont Tractor Co., P. O. Box 151

Mont., Missoula—Westmont Tractor Co., 150 E. Spruce St.

Nev., Reno—Tractor Equipment Co., 1525 E. Fourth St.

N. Mex., Albuquerque—R. L. Harrison Co., 1801 Fourth St. N.W.

Ore., Portland—Clyde Equipment Co., 1631 N.W. Thurman St.

Utah, Salt Lake City—Lang Construction Equipment Co., 267 W. First So. St.

Wash., Seattle—Clyde Equipment Co., 3410 First Ave. So.

Wash., Seattle—Northern Commercial Co., Colman Bldg.

Wash., Spokane—Intermountain Equipment Co., E. 611 Sprague Ave.

### BUDA DIV., see ALLIS-CHALMERS MFG. CO., BUDA DIV.

### BULLDOG PALLET CO., Haley Rd., P. O. Box 547, Newark, Calif.

Bins, Pallets, Pallet Shook, Pallet and box nails.

### BUSCHMAN, E. W., CO., THE, 4537

Clifton Ave., Cincinnati 32, Ohio

Conveyors (open, automatic, bag and bale, belt, chain or link, drag, flight, foundry, gravity roller, live roller, overhead, pallet, portable, skate, slot, trolley, special).

#### Representatives

Calif., Alhambra—Geo. M. Prescott Co., 825 So. Fremont Ave. CU 3-3114

Calif., San Francisco—Geo. M. Prescott Co., 7 Front St.

Colo., Denver—Landes, Zachary and Peterson, 275 Kalamath St. (also serves N. Mex.)

Wash., Seattle—Geo. M. Prescott Co., 4012 E. 38th St.

### BUTLER MFG. CO., SPECIAL PRODUCTS DIV., 7400 E. 13th St., Kansas City, Mo. Racks (pallet).

#### Branch

Calif., Richmond—So. 27th and Butler. BE 2-4982

#### Representatives

Calif., Lynwood—J. W. Lafferty Co., 11371 So. Atlantic Blvd.

Calif., San Francisco—Ira G. Perlin Co., 675 Howard St.

### C & D BATTERIES, INC., Washington and Cherry Sts., Conshohocken, Pa. Batteries

#### Branches

Ariz., Phoenix—4101 E. Oak St. BR 5-2892

Calif., Los Angeles—1014 Venice Bldg. PR 5498

Calif., San Diego—722 Fern Glen. GL 4-6757

Calif., San Francisco—324 Fifth St. SU 1-5591

Colo., Denver—1732 Blake St. CH 4-1102

Ore., Portland—208 S.W. Stark St. CA 8-9211

Wash., Spokane—E. 125 Mission St. FA 5379

### CADY METAL FABRICATING CO., 88 Schenck St., North Tonawanda, N. Y. Pallet lifters for crane handling of palletized materials.

#### Representatives

Calif., Gridley—Robert L. Harrison, 265 Nevada St., P. O. Box 41

Calif., San Francisco—P. F. O'Donnell Co., 2298 Jerrold Ave. AT 8-6382

### CALDWELL CO., INC., THE, 1123 Fourth Ave., Rockford, Ill.

Slings (nylon and dacron, wire rope, and chain equalizing).

#### Representatives

Ariz., Phoenix—Vetco Supply Corp., 710 So. 35th Ave.

Calif., Los Angeles—Green-Penny Co., 421 E. Washington. RI 8-1191

Calif., Oakland—Green-Penny Co., 2211 San Pablo. GL 1-8555

Colo., Denver—J. D. Whiting, P. O. Box 3382. GR 7-2134

Utah, Salt Lake City—Rocky Mountain Mch., P. O. Box 2037. HU 4-4373

### CAMBRIDGE WIRE CLOTH CO., Cambridge, Md.

Baskets (metal, wire, heat treating), Belting (wire), Conveyors (woven wire), Slings (woven wire).

#### Branch

Calif., San Francisco—420 Market St. YU 6-4503

### CAMPBELL CHAIN CO., Norway St., York, Pa.

Chains, Slings (chain).

#### Branches

Calif., Sacramento—712 R St.

Ore., Portland—3085 N.W. Front St.

#### Representatives

Calif., Los Angeles—E. R. Palmtag Co., 164 So. Central Ave.

Calif., San Francisco—E. R. Palmtag Co., 975 Indiana St.

Calif., Santa Barbara—D. R. Coutts, 1933 Mission Ridge Rd.

N. Mex., Albuquerque—A. E. Vincent, 3917 Thaxton Ave. S.E.

Ore., Portland—Lou C. Falkenhagen, 907 N.W. Irving

Utah, Salt Lake City—J. H. Nicodemus, 230 So. Fourth W. St.

Wash., Seattle—Merrill Falkenhagen, 2400 Sixth Ave., So.

Wash., Seattle—W. H. Henricksen, 201 Lake Washington Blvd.

(Also industrial distributors throughout the West)



## CAPCO-CANVAS PRODUCTS CO.,

622 Prospect Ave., Kansas City 23, Mo.

Dock covers

### Representatives

Calif., San Francisco—Western Industrial Equipment Co., 420 Market St. SU 1-4757  
Calif., Santa Ana—George Otte, 506 E. Santa Clara  
Colo., Denver—Joe Coursey Equipment Co., 1243 Walnut St. AC 2-9581  
Utah, Salt Lake City—Equipment Supply Co., 16, Post Office Pl. EM 8-9074

## CARRIER CONVEYOR CORP., 211

No. Jackson, Louisville, Ky.

Conveyors (vertical, vibrating).

### Representatives

Calif., Los Angeles—E. M. Underwood & Associates, 3319 Beverly Blvd. DU 2-1375  
Calif., San Francisco—Rodman & Co., 420 Market St. YU 2-0824  
Colo., Denver—Aldredge & McCabe, 847 E. 17th St. AL 5-7496  
Ore., Portland—Burnstead-Woolford Co., 320 S.W. Stark St. AT 6636  
Utah, Salt Lake City—Western Sales Engineering Co., 376 S.W. Temple St. DA 2-4311  
Wash., Seattle—Burnstead-Woolford Co., 1141 Fourth Ave. EL 4915

## CARVER PUMP CO., 1056 Hershey Ave., Muscatine, Ia.

Pumps (liquid handling).

### Representatives

Ariz., Phoenix—Salt River Pump & Supply, P. O. Box 6324  
Calif., Los Angeles—Frederick Pump & Engineering, 5742 Duarte St.  
Calif., Oakland—Coker Pump & Equipment Co., 583 Fourth St.  
Colo., Denver—I. G. Downs Co., Inc., 1542 Blake St.  
N. Mex., Albuquerque—Herlin Engineering Co., P. O. Box 8293, Sta. C.

## CATERPILLAR TRACTOR CO., Peoria 8, Ill.

Loaders (portable, self-propelled), Tractors (diesel).

### Representatives

Ariz., Phoenix—Arizona Machinery Co., 2705 W. Thomas Rd.  
Ariz., Yuma—Braden Machinery Co., 900 Fourth Ave.  
Calif., Blythe—Honnens Machinery Co., West Hobson Way  
Calif., Chico—Sierra Tractor & Equipment Co., 1240 Park Ave.  
Calif., Colusa—J. G. Zumwalt Co., 850 Market St.  
Calif., El Centro—Faure Tractor & Equipment Co., 1414 W. Main St.  
Calif., Eureka—Brizard-Matthews Machinery Co., 3990 Broadway  
Calif., Fresno—Budd & Quinn, Inc., 1645 H St.  
Calif., Hanford—Davies Machinery Co., 112 E. Seventh  
Calif., Los Angeles—Shepherd Tractor & Equipment Co., 3400 So. San Gabriel River Pkwy.  
Calif., Marysville—Marysville Tractor & Equipment Co., 712 Third St.  
Calif., Merced—Halton Tractor Co., 64 16th St.  
Calif., Modesto—Valley Tractor & Equipment Co., 104 Ninth St.  
Calif., Napa—Berglund Tractor & Equipment Co., 1016 Soscol Ave.  
Calif., Oxnard—Wallace Machinery Co., 625 No. Oxnard Blvd.  
Calif., Riverside—Johnson Tractor Co., 3135 Seventh St.  
Calif., Sacramento—Weaver Tractor Co., 1900 T St.  
Calif., Salinas—Pringle Tractor Co., 110 Abbott  
Calif., San Diego—Hawthorne Machinery Co., 701 First Ave.  
Calif., San Francisco—Thomas A. Short Co., 245 Fremont St.  
Calif., San Jose—Ditz Bros., 1699 So. First St.  
Calif., San Leandro—Peterson Tractor & Equipment Co., 965 First Ave.  
Calif., Santa Maria—Joseph G. Moore Co., Highway 101  
Calif., Stockton—Holt Bros., 700 So. Aurora  
Calif., Visalia—Treanor Equipment Co., 721 E. Main St.  
Colo., Denver—McCoy Co., 60th and Colorado Blvd.  
Idaho, Boise—Western Equipment Co., 4009 Fairview Ave.  
Idaho, Idaho Falls—Parkinson Tractor Co., 1333 No. Yellowstone Ave.  
Idaho, Lewiston—Nes Perce Tractor & Equipment Co., Second and C Sts.  
Mont., Billings—Nash-Davis Machinery Co., 1145 Highway 10 East  
Mont., Great Falls—Central Machinery Co., 721 Second St. So.

Mont., Missoula—Westmont Tractor Co., 150 E. Spruce St.

Mont., Sidney—Tractor & Equipment Co., 201 No. Central

Nev., Las Vegas—James Cashman Co., 109 No. Main St.

Nev., Reno—Sanford Tractor & Equipment Co., No. Valley Rd.

N. Mex., Albuquerque—R. L. Harrison Co., 1801 Fourth St. N.W.

Ore., Eugene—Pape Bros., Inc., P. O. Box 909

Ore., Klamath Falls—Crater Lake Machinery Co., 1410 So. Sixth St.

Ore., La Grande—Inland Machinery Co., 212 Greenwood St.

Ore., Pendleton—Empire Machinery Co., 1849 S.W. Court Ave.

Ore., Portland—Halton Tractor Co., P. O. Box 3778

Utah, Salt Lake City—Wheeler-Kershaw Co., 245 W. So. Temple

Wash., Seattle—Collins Machinery Co., 4233 W. Marginal Way

Wash., Seattle—Northern Commercial Co., 427 Colman Bldg.

Wash., Spokane—Byrne Machinery Co., 4625 E. Trent Rd.

Wash., Tacoma—Murphy-Campbell Co., 2719 So. Tacoma Way

Wash., Walla Walla—Stone Machinery Co., 102 E. Poplar St.

Wash., Wenatchee—Columbia Tractor Co., 1014 No. Miller St.

Wash., Yakima—Webb Tractor & Equipment Co., P. O. Box 78

Wyo., Cheyenne—Wortham Machinery Co., 517 W. 17th St.

## CENTURY GAS EQUIPMENT CO.,

6855 E. Rosecrans Blvd., Paramount, Calif. NE 6-9211

Carburators for L.P. Gas conversions.

See advertisement on page 192

### Representatives

Ariz., Phoenix—Fannin's Gas & Equipment Co., P. O. Box 1979  
Calif., Bakersfield—L. O. McClure, 1181 33rd  
Calif., Fresno—United Liquid Gas Co., Highway 99 and Maple Ave.  
Calif., King City—Van Horn Butane Service, P. O. Box 35  
Calif., Lodi—Gray's Butane, Inc., 106 W. Elm  
Calif., Long Beach—R. S. Harmer, 2875 Cherry  
Calif., Long Beach—Petrolane Gas Service, Inc., P. O. Drawer 1410  
Calif., Los Angeles—Nison Engineering Co., 4546 E. Washington St.  
Calif., Ripon—A. B. Kamps, 336 W. Main St.  
Calif., Sacramento—Cal-Gas Equipment Co., P. O. Box 52, Oak Park Station  
Calif., San Jose—Weaver Gas Service, 1687 So. First St.  
Calif., Upland—Suburban Gas Service Co., 60 E. Foothill Blvd.  
Calif., Watsonville—Coast Gas Service, P. O. Box 174  
Colo., Denver—Central Auto Electric Co., 12th Ave. and Lincoln St.  
Colo., Holyoke—Butane-Propane Service, Inc.  
Colo., Ordway—Ideal Gas Co.  
N. Mex., Carlsbad—Carlsbad Gas & Appliances, P. O. Box 446  
Wash., Yakima—Petrolane Gas Service, Inc., P. O. Box 862

## CHAIN BELT CO., Milwaukee, Wis.

Chains, Conveyors (apron, belt, bucket, chain or link, drag, flight, foundry, slot), Elevators (barrel, packaging, belt, bucket), Flexible couplings, Sprockets, Rollers (conveyor belt), Roller bearings.

### Branches

Calif., Berkeley—2940 Seventh St. TH 3-6801  
Calif., Los Angeles—7601 Telegraph Rd. RA 3-4751  
Colo., Denver—5460 Colorado Blvd. AL 5-2091  
Ore., Portland—2810 N.W. 24th Ave. CA 3-6121  
Utah, Salt Lake City—375 So. West Temple  
Phone 22-4311  
Wash., Seattle—2425 Airport Way. MA 7051

### Distributors

Ariz., Phoenix—Garrett Supply Co., P. O. Box 4125, Commerce Station  
Calif., Bakersfield—Hopper Machine Works, 301 26th St. PO 1226  
Calif., Cloverdale—Klamath Machinery Works  
Calif., El Centro—W. H. Douthitt Steel & Supply Co., P. O. Box 183, Rt. 1  
Calif., El Centro—Winn Supply Co., 354 E. Main St., P. O. Box 1504  
Calif., Eureka—Eureka Boiler Works & Acme Foundry Co., Foot S St.  
Calif., Fresno—Valley Foundry & Machine Works, 2710 So. East Ave.  
Calif., Long Beach—Bay City Bearing Co., 709 W. 16th St.  
Calif., Los Angeles—Bearing Sales Co., 1950 So. Olive St.

Calif., Los Angeles—Garrett Supply Co., 3844 So. Santa Fe Ave.

Calif., Los Angeles—B. Hayman Co., 3301 Leonis Blvd.

Calif., Los Angeles—Republic Supply Co., 2600 So. Eastland Ave.

Calif., Maywood—Bay City Bearing Co.

Calif., Oakland—Bay City Iron Works, Fourth and Washington St.

Calif., Pomona—Reliable Bearing & Supply Co., 246 So. Towne Ave.

Calif., Redding—Gerlinger Steel & Supply Co., 1527 Sacramento St.

Calif., Sacramento—Capital Machine & Welding Works, 88 No. 17th St.

Calif., San Bernardino—Reliable Bearing & Supply Co., 263 So. E St.

Calif., San Diego—Winn Supply Co., 256 Seventh Ave.

Calif., San Jose—Bearing & Equipment Co., Inc., 60 So. San Pedro Way

Calif., San Leandro—Republic Supply Co. of Calif., 1919 Williams St.

Calif., Santa Maria—The Bearing House, Pecos Rd.

Calif., Stockton—Gunter & Zimmerman, Inc., P. O. Box 1688

Calif., Stockton—H. O. Shaw Co., 240 So. Aurora

Calif., Ukiah—Klamath Machinery Works

Calif., Ventura—The Bearing House, 1282 No. Ventura Ave.

Colo., Denver—Union Supply Co., 5460 Colorado Blvd.

Idaho, Pocatello—Paul Roberts, 850 So. Main

Idaho, Twin Falls—Paul Roberts, 356 Fourth Ave. W.

Idaho, Wallace—Bitco, Inc.

Mont., Billings—Hall-Perry Machinery Co., 902 Central Ave.

Mont., Butte—Hall-Perry Machinery Co., 812 E. Iron St.

Mont., Great Falls—Hall-Perry Machinery Co., 1116 15th St. No.

Mont., Missoula—Hall-Perry Machinery Co., 127 E. Main St.

Nev., Reno—Pioneer Equipment Co. of Nevada, 525 Kietzke Lane. P. O. Box 78

New Mex., Carlsbad—Carlsbad Supply Co., 501 Park Dr.

N. Mex., Farmington—C & K Industrial Supply, 635 E. Main St.

Ore., Baker—Bashe-Sage Hardware Co., 2101 Main St.

Ore., Coos Bay—A. B. Daly, 324 No. Front St.

Ore., Eugene—Harmer Mill & Logging Supply Co., 209 Polk St.

Ore., Klamath Falls—Klamath Machinery Co., 445 Spring St.

Ore., La Grande—Bashe-Sage Hardware Co.

Ore., Ontario—Bashe-Sage Hardware Co.

Ore., Portland—Clyde Equipment Co., 1631 N.W. Thurman St.

Ore., Portland—H. W. Sharp Co., 71 S.W. Oak St.

Ore., Pringleville—Pringleville Machine & Supply Co., P. O. Box 85

Ore., Roseburg—Industrial Supply Co., 132 So. Stephens

Ore., Salem—Salem Steel & Supply Co., 180 Court St.

Utah, Helper—Carbon Transfer & Supply Co., P. O. Box 180

Utah, Ogden—Mountain States Implement Co.

Wash., Aberdeen—Whitcher Machinery Co., 411 E. State St.

Wash., Everett—Everett Hardware Co., 2718 Broadway

Wash., Seattle—Washington Machinery Co., 7329 E. Marginal Way

Wash., Spokane—Bitco, Inc., E. 2928 Trento

Wash., Tacoma—Gerrish Machinery Co., 1101 E. E St.

Wash., Tacoma—W. S. Walter Co., 1722 Pacific

Wash., Walla Walla—Morrison Supply Co., 217 E. Elder St.

Wash., Yakima—Dodge-Yakima Supply Co., 109 So. Front St.

## CHAINVEYOR CORP., 5618 E. Washington Blvd., Los Angeles, Calif.

Conveyors (automatic, chain link overhead, trolley, combination power and free trolley).

### Representatives

Calif., Fresno—Elliott Mfg. Co., 1735 Ventura  
Calif., Modesto—Barker Poultry Equipment Co., 518 So. Hwy. 99.  
Calif., San Diego—General Industrial Supply, 1115 F St.  
Calif., San Francisco—Ira G. Perin Co., 575 Howard St.  
Colo., Denver—Hack Engineering Co., 124 Wazee St.  
Ore., Portland—A. A. Schuler Co., 1128 S.W. Market St.  
Utah, Salt Lake City—Equipment Supply Co., 16 Post Office Pl.  
Wash., Seattle—Howard W. Wylie, 2615 Western Ave.



## CHAMP — COLORADO

**CHAMP CORP.**, 2500 Rosemead, El Monte, Calif. CU 3-6083  
Trucks (gasoline fork).

### Representatives

Ariz., Phoenix—Western Machinery Co., 820 No. 17th. AL 8-8531  
Calif., Fresno—Valley Fork Lift Rental & Equipment Co., 2424 So. Railroad Ave. AD 3-1255  
Calif., Hayward—Western Lift Truck Service. 21031 Western Blvd. BR 6-3775, EL 1-5058  
Calif., Stockton—Western Lift Truck Service, 348 W. Weber. HO 2-3847  
Colo., Denver 4—Western Machinery Co., 2400 W. Seventh Ave. TA 5-7151  
Utah, Salt Lake City—Western Machinery Co., 2300 So. Main. Ingersol 6-8668  
Wash., Spokane—Western Machinery Co., No. 808 Division St. EM 1501

**CHANTLAND MFG. CO.**, P. O. Box 79, Badger, Iowa

Conveyors (apron, bag and bale, belt, bucket, drag, flight, foundry, gravity roller, live roller, portable, screw, skate, slot, special, engineered in-plant systems).

### Representatives

Calif., Los Angeles 32—Davis Material Handling Co., 5649 Alhambra Ave.  
Calif., San Francisco—General Conveyor Inc., 870 Market St.  
Calif., San Francisco—Walter N. Steele, Machinery & Supplies, 41 Drumm St.  
Colo., Denver 2—Plant Equipment Co., 1400 Market St.  
Idaho, Twin Falls—Walter N. Steele Co., 401 Shoshone St.  
Mont., Billings—Nash-Davis Machinery Co., 509 E. 27th St.  
Ore., Portland—LaGrand Industrial Supply Co., 15 S.W. Arthur St.  
Ore., Portland 10—Oregon Handling Equip. Co., 2949 N.W. St. Helens Rd.  
Ore., Portland—Reid-Strut Co., Inc., 1015 S.E. Stark St.  
Wash., Seattle—Materials Handling Equip. Co., 2963 1st Ave. So.

**CHESTER HOIST DIV., NATIONAL SCREW & MFG. CO.**, P. O. Box 362, Lisbon, Ohio

Hoists (chain, electric, hand, monorail, traveling), Trolleys.

### Branches

Calif., Los Angeles—3423 So. Garfield Ave. RA 3-1381  
Calif., San Francisco—1 Drumm St. DO 2-3082  
Colo., Denver—1863 Wazee St. TA 5-0513  
Ore., Portland—3604 S.W. Macadam. BE 2127

**CHISHOLM-MOORE HOIST DIV., COLUMBUS McKINNON CHAIN CORP.**, Fremont Ave., Tonawanda, N. Y.

Cranes (hand power, jib, pillar, swing, bracket, hand power traveling overhead, 1 beam overhead), Hoists (chain, electric, hand, monorail, traveling), Trolleys.

See advertisement on page 72

### Branches

Calif., Los Angeles—816 W. Fifth St. MU 6444  
Calif., San Francisco—320 Tenth St. UN 1-5255

**CHRISTIAN, J. D., ENGINEERS**, 480 Potrero Ave., San Francisco 10, Calif. HE 1-1300

Chains, Conveyors (apron, automatic, bag and bale, belt, bucket, chain or link, continuous flow, drag flight, foundry, gravity roller, live roller, overhead, pallet, pneumatic, portable, screw, skate, slot, trolley, vertical vibrating, special and other), Cranes (1 beam overhead), Elevators (barrel, package, belt, bucket, continuous flow, other), Hoists (bucket, chain, drum, electric, skip), Loaders (portable, self-propelled), Pulleys, Rollers, Winches and Windlasses.

### Representatives

Colo., Denver—Byer Rum Engineering Sales Co., 205 Denham Bldg. AC 2-2330  
Ore., Portland—Oregon Handling Equipment Co., 2949 N.W. St. Helens Rd. CA 8-4196  
Utah, Salt Lake City—L. J. Halverson Corr. Works, 232 Lucey Ave. Phone 6-9733

**CLARK EQUIPMENT CO., INDUSTRIAL TRUCK DIV.**, Battle Creek, Mich.

See advertisement on pages 12 & 13

Trucks (elevating or lifting, diesel fork, electric fork, gasoline fork, motorized hand, industrial, paper roll, straddle).

### Branch

Calif., San Francisco—785 Market St. YU 2-0228

### Representatives

Calif., Los Angeles—Robert H. Braun Co., 5519 Jilison St. RA 3-6381  
Calif., Oakland—Lifton, Inc., 6601 San Leandro St. SW 8-9100  
Calif., Sacramento—J. R. Rolfe Equipment Co., 3200 J St. HU 4-8248  
Calif., San Jose—Warner-Yates Co., 1441 Terminal Ave. CY 7-4566  
Colo., Denver—Francis & Sims, Inc., 2855 W. 8th Ave. AL 5-1781  
Ore., Portland—Robert Dodd Co., 5210 S.W. Corbett. CA 8-8603  
Utah, Salt Lake City—Foulger Equipment Co., 1361 So. Second West. HU 4-7625  
Wash., Seattle—Preston Faller, 1921 Minor Ave. MA 4256

**CLARK EQUIPMENT CO., ROSS CARRIER DIV.**, Miller St., Benton Harbor, Mich.

Trucks (straddle).

### Branch Office

Calif., San Francisco—706-707 Humboldt Bldg. YU 2-0228

### Representatives

Ariz., Phoenix—Naumann Lift Trucks, Inc., 2308 So. 11th Ave. AL 8-8951  
Calif., Eureka—Eureka Boiler Works, Foot of S St. HI 3-1681  
Calif., Fresno—Gray Lift, Inc., 1905 Mary St., Phone 8-6256  
Calif., Los Angeles—Robert H. Braun Co., 5519 Jilison St. RA 3-6381  
Calif., Oakland—Lifton, Inc., 6601 San Leandro St. SW 8-9100  
Calif., Sacramento—J. R. Rolfe Equipment Co., 3200 J St. HU 4-8248  
Calif., San Jose—Warner-Yates Co., 1441 Terminal Ave. CY 7-4566  
Colo., Denver—Francis & Sims, Inc., 2855 W. Eighth Ave. AC 2-4041  
Ore., Portland—Robert Dodd Co., 238 N.E. Oregon St. BE 4-8491  
Utah, Salt Lake City—Foulger Equipment Co., 1361 So. Second W. HU 4-7625  
Wash., Seattle—Preston Faller Co., 1921 Minor St. MA 4256

**CLEVELAND TRAMRAIL DIV., CLEVELAND CRANE & ENGINEERING CO.**, Wickliffe, Ohio

Conveyors (automatic, foundry, overhead, trolley), Cranes (gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, locomotive overhead, monorail overhead) Grabs, Hoists (air, chain, crane, drum, electric, hydraulic, monorail, traveling), Scales (conveyor, monorail), Tractors (monorail), Trolleys.

See advertisement on page 68

### Representatives

Calif., Los Angeles—Cleveland Tramrail Calif. Co., 6435 Corvette St. RA 3-5205  
Calif., San Francisco—Cleveland Tramrail Calif. Co., 870 Market St. EX 7-0737  
Colo., Denver—Cleveland Tramrail Denver Co., 1700 15th Ave. MA 3-3221  
Utah, Salt Lake City—Cleveland Tramrail Utah Division, 334 W. 17th St. EL 5-8751  
Wash., Seattle—Nelson J. Leonard, 5764 28th Ave. N.E. KE 6828

**CLEVELAND WORM & GEAR CO.**, 3255 E. 80th St., Cleveland 4, Ohio.  
Drives (variable speed), Gears (worm), Reducers, Speed (worm gear).

See advertisement on page 80

### Representatives

Calif., Los Angeles—The Mark-Costello Co., 6511 Whittier Blvd. RA 3-4696  
Calif., San Francisco—F. Somers Peterson Co., 157 13th St. MA 1-2255

Colo., Denver—J. M. Warner Co., 600 W. 48th Ave. AC 2-2685  
Ore., Portland—Bearing Sales & Service, Inc., 1645 N.W. Hoyt St. CA 3-6301  
Utah, Salt Lake City—Sales Engineering Co., Inc., 526 W. 8th St. ST. EL 5-1162  
Wash., Seattle—Bearing Sales & Service, Inc., 2908 Sixth Ave. So. MU 0331

**CLIPPER BELT LACER CO.**, 974 Front Ave., N. W., Grand Rapids 2, Mich.  
Belt fasteners, Belt lacings.

### Branch

Calif., Oakland—2511 Broadway  
Representatives  
(Industrial distributors on non-exclusive basis)

**CLYDE IRON WORKS**, Duluth 1, Minn.

Cranes (gantry), Hoists (bucket, crane, derrick, drum, electric, gasoline, portable), Winches and Windlasses.

### Representatives

Ariz., Phoenix—State Tractor & Equipment Co., 407 So. 17th Ave. D 2-1731  
Calif., Los Angeles—Harron, Rickard & McCone Co., 3850 Santa Fe Ave. LO 5-8361  
Calif., San Francisco—Coast Equipment Co., 444 Eighth St. MA 1-5740  
Colo., Denver—Mine & Smelter Supply, 1422 17th St. KE 3111  
Idaho, Boise—Intermountain Equipment Co., Broadway at Myrtle. Phone 3-6441  
Mont., Billings—Western Construction Equipment Co., 505 No. 24th St. Phone 9-5501  
N. Mex., Albuquerque—Harry Cornelius Co., 1510 No. 2nd St. Phone 3-1776  
Ore., Portland—Clyde Equipment Co., 1631 N.W. Thurman St. BR 5561  
Utah, Salt Lake City—Mine & Smelter Supply, 121 W. Second St. St.  
Wash., Seattle—Clyde Equipment Co., 3416 First Ave. So. MA 1235  
Wash., Spokane—Intermountain Equipment Co., E. 611 Sprague Ave. TE 2521

**COFFING HOIST DIV.**, see DUFF-NORTON CO., COFFING HOIST DIV.

**COLBY STEEL & MFG., INC.**, 65 Horton St., Seattle 4, Wash.

Cranes (gantry, electric and electric traveling overhead, whirley, hammerhead), Elevators (marine, freight), Hoists (electric, gasoline), Ramps, Trucks (elevating or lifting, electric fork, industrial, power-driven lift), Unloaders (grab bucket).

**COLES CRANES, INC.**, P. O. Box 942, Joliet, Ill.

Cranes (yard, truck, tractor, rail mounted).

### Representatives

Ariz., Phoenix—Naumann Lift Trucks, Inc., 2308 So. 11th Ave. AL 8-8951  
Calif., Fresno—Gray Lift, Inc., 1905 Mary St. AM 8-6256  
Calif., Los Angeles—Robert H. Braun Co., 5519 Jilison St. RA 3-6381  
Calif., Oakland—Robert H. Griffin Co., 600 16th St. GL 1-3234  
Calif., San Diego—Robert H. Braun Co., 2208 Imperial. BE 3-0948  
Colo., Denver—Woodruff Brothers, 617 Cooper Bldg. TA 2913  
Ore., Portland—Air-Mac, Inc., 1111 S.E. Grand Ave. BE 4-6524  
Utah, Salt Lake City—Equipment Supply Co., 16 Post Office Pl. Phone 3-9074  
Wash., Seattle—Air-Mac, Inc., 3338 Fourth Ave. MU 3388

**COLORADO FUEL & IRON CORP.**, P. O. Box 1920, Denver 1, Colo.

Conveyors, slings (wire rope), Wire rope, Metal Processing.

See advertisement on page 189

### Branches

Ariz., Phoenix—305 E. Buchanan. AL 8-5751  
Calif., Los Angeles—2444 Saybrook Ave. RA 3-4691  
Calif., Oakland—1080 19th Ave. KE 2-2141  
Calif., San Francisco—1245 Howard St. MA 1-2369  
Colo., Grand Junction—P. O. Box 451  
Colo., Pueblo—P. O. Box 316. LI 3-2470  
Idaho, Boise—P. O. Box 1552  
Mont., Billings—214 Fratt Bldg. Phone 6-6520  
Mont., Butte—401 Metals Bank Bldg. Phone 5359



## COLSON - CYCLONE

### CRANEVEYOR CORP., 1240 S. Boyle Ave., Los Angeles 23, Calif.

Cranes (gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric overhead, electric traveling, foundry overhead, hand power traveling overhead, I beam overhead, monorail overhead), Hoists (air, chain, crane, electric, hand, monorail, portable, traveling, other), Trailers, Electric cable reels.

#### Representatives

Ariz., Phoenix—Pratt-Gilbert Hardware Co., P. O. Box 2230, AL 8-6751  
 Colo., Denver—Mine and Smelter Supply, P. O. Box 5270, Terminal Annex, KE 4-3111  
 Utah, Salt Lake City—Mine and Smelter Supply, 121 W. So. Second, Phone 8-2791

### CRESCENT BELT FASTENER CO., 480 Lexington Ave., New York 17, N. Y.

Belt fasteners and belt lockings.

#### Representatives

(Distributors in all major Western cities).

### CROWN ZELLERBACH CORP., 343 Sansome St., San Francisco 19, Calif.

Bags (multi-wall, shipping), Boxes for shipping, Packaging tape.

See advertisement inside front cover

#### Branches

Calif., Los Angeles—3416 So. Garfield Ave. RA 3-6231  
 Calif., San Francisco—343 Sansome St. GA 1-3100  
 Colo., Denver—240 Josephine St. FL 5-3551  
 Wash., Seattle—719 White Bldg. MA 3940

### CROWN-ZELLERBACH CORP., see also GAYLORD CONTAINER DIV. OF CROWN-ZELLERBACH CORP.

### CULLEN-FRIESTEDT CO., 1300 So. Kilbourn Ave., Chicago 23, Ill.

Buckets (clamshell), Cranes (locomotive), Grabs (rail tongs, sheet steel lifters, coil steel lifters), Grapples, Welding positioners.

#### Representatives

Calif., Los Angeles—J. E. Simkins, 1748 W. 54th St. AX 1-2022  
 Calif., San Francisco—11-G. Proffitt, Ferry Bldg. DO 2-1464  
 Wash., Seattle—H. A. Cheever, 2739 First Ave. So. EL 1078

### CURTIS MFG. CO., 1905 Kienlen Ave., St. Louis 20, Mo.

Hoists (air, hydraulic), Air compressors.

See advertisement on page 106

#### Representatives

Calif., Berkeley—Harry Koses, 3033 San Pablo Ave. AS 3-6726  
 Calif., Los Angeles—L. L. Meikle, 2844 So. Grand Ave. RI 8-0151  
 Colo., Denver—E. J. Witulski, 1270 So. Josephine PE 6775  
 Ore., Portland—L. L. Meikle, 1018 S.E. Eighth Ave. FI 7469

### CUSHMAN MOTOR WORKS, INC., 900 No. 21st St., Lincoln, Neb.

Cars (power), Trucks (factory and warehouse, electric, gas-electric, gasoline industrial).

#### Branch

Calif., Los Angeles—4000 Palmyra Rd. AX 4-5876

#### Representatives

(Dealers in all principal cities.)

### CYCLONE FENCE DEPT., AMERICAN STEEL & WIRE DIV., UNITED STATES STEEL CORP., P. O. Box 260, Waukegan, Ill.

Baskets (wire), Belting (chain link, flat wire, parallel wire, conveyor, endless), Sprinklers (conveyor belt).

#### Branches

Ariz., Phoenix—4814 No. Central Ave. AM 6-1694  
 Ariz., Tucson—426 E. Seventh St. Phone 3-4617

N. Mex., Albuquerque—336 Korber Bldg. Phone 3-5526  
 Ore., Portland—1350 N.W. Raleigh, CA 8-7311  
 Utah, Salt Lake City—212 W. 13th So. St. Phone 7-5438  
 Wash., Seattle—3434 Second Ave. So. SE 4881  
 Wash., Spokane—4320 E. Trent Ave. KE 5-2071  
 Wyo., Casper—666 W. Yellowstone Hwy. Phone 3-5642

### COLSON CORP., Cedar and Pine Sts., Elyria, Ohio

Carts (hand push, other), Casters, Conveyors (belt, continuous flow, gravity roller, live roller, portable, skate), Elevators (barrel, package, portable tiering, other), Hoists (electric, hand, hydraulic, portable), Jacks (lift), Racks (pallet, storage), Stackers (portable electric, portable hand), Tables (elevating, portable), Tractors (gasoline warehouse), Trailers (factory and warehouse, motor truck and tractor), Trucks (bag, barrel, drum, box type, die handling, dolly, elevating or lifting, factory and warehouse, gasoline fork, hand, motorized hand, industrial, hand lift, hand electric lift, hand-mechanical lift, hydraulic lift, power-driven lift, packing house, pallet, paper roll, sheet handling, skid handling, straddle, electric hoisting), Wheels (conveyor, general industrial, hand truck, rubber tired tractor, trailer).

See advertisement on page 96

#### Branch

Ore., Portland—614 N.W. Sixth Ave. CA 7-5672  
 Representative  
 Calif., Los Angeles—Colson Equipment & Supply Co., 1317 Willow St. TR 5743  
 Calif., Oakland—Colson Equipment & Supply Co., 350 Tenth St. TE 2-3556  
 Calif., San Francisco—Colson Equipment & Supply Co., 20 Beale St. GA 1-0280  
 Colo., Denver—Armstrong Caster Co., 465 Santa Fe Dr. AC 3777  
 Idaho, Boise—R. H. Brown Co., 1503 Main St. Phone 7784  
 N. Mex., Albuquerque—Albuquerque Materials Handling Co., 6431 Linn Ave. N.E. Phone 6-5518  
 Wash., Seattle—R. H. Brown Co., 502 First Ave. So. SE 0707

### COLSON EQUIPMENT & SUPPLY CO., 1317 Willow St., Los Angeles 13, Calif. TR 5743

Casters, Wheels, Hand trucks, Industrial trailers, Platform trucks, Conveyors, Portable elevators.

See advertisement on page 96

#### Branch Offices

Calif., Oakland—350 10th St. TE 2-3556  
 Calif., San Francisco—20 Beale St. CA 1-0280

### COLUMBIA-GENEVA STEEL DIV., UNITED STATES STEEL CORP., 120 Montgomery St., San Francisco 6, Calif.

Aerial tramways, Cableways, Light suspension bridges, Wire rope.

See advertisements on pages 59 & 87

#### Branches

Calif., Los Angeles—2087 E. Slauson Ave., LU 5-1171  
 Colo., Denver—First National Bank Bldg. MA 3-2241  
 Ore., Portland—2345 N.W. Nicolai, CA 9534  
 Utah, Salt Lake City—Walker Bank Bldg. DA 2-0491  
 Wash., Seattle—7th & Olive Way, MA 1972

### COLUMBUS MCKINNON CHAIN CORP. see CHISHOLM-MOORE HOIST DIVISION

### CONCO ENGINEERING WORKS, Mendota, Ill.

Cranes (gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, I-beam overhead), Hoists (chain, crane, electric, hand, monorail, traveling), Trailers.

#### Representatives

Ariz., Phoenix—E. D. Flournoy Co., P. O. Box 3945

Calif., Los Angeles—W. T. Billard, Inc., 734 E. Third St.  
 Ore., Portland—F. E. Bennett Co., 426 N. W. Sixth Ave.  
 N. Mex., Albuquerque—E. D. Flournoy Co., 217 So. Sixth St.  
 Utah, Salt Lake City—Riter Engineering Co., Kearns Bldg.

### CONTAINER STAPLING CORP., P. O. Box 247, Herrin, Ill.

Industrial carton stapling machines and staples to "set-up" or close filled corrugated cartons.

#### Representatives

Calif., Los Angeles—Cal State Distributors, 646 W. Florence Ave. PL 2-7141  
 Calif., Salinas—Produce Supply Co., 1156 Ter-ven St. HA 2-4229  
 Calif., San Francisco—Truman W. Ball, 383 Brannan St. DO 2-7213  
 Ore., Portland—A. & W. Sales Co., 2251 No. Interstate, AT 8-2970  
 Ore., Portland—Duo Fast Oregon Co., 621 S.E. Morrison, BE 5-1021  
 Wash., Seattle—Perkins Specialty Co., 3026 First Ave. MU 6314  
 Wash., Seattle—A. H. Nordlund, 630 Edmunds St. MA 4415  
 Wash., Wenatchee—Chamberlin Distributing Co., 621 So. Wenatchee Ave. NO 3-5303

### CONVEYOR CO., MOBILE SWEEPER DIV., 3260 E. Slauson Ave., Los Angeles 58, Calif. LU 2-8411

Belting (chain link, composition, conveyor, elevator, wire), Conveyors (apron, automatic, bag and bale, belt, bucket, chain or link, drag, flight, foundry, gravity roller, screw, skate, vibrating), Elevators (belt, bucket, continuous flow), Pulleys (conveyor), Scales (automatic, conveyor), Wheels (conveyor).

#### Representatives

Ariz., Phoenix—O. S. Stapley Co., 723 Grand Ave. Phone 8-2121  
 Calif., San Diego—Southern Equipment and Supply Co., 2025 E. Harbor Drive. BE 2-6123  
 Calif., San Francisco—Tri-Counties Equipment and Implement Co., 575 Berry St. MA 1-3121  
 Calif., Ukiah—Fullerton Equipment Co., 265 E. Clay St. HO 2-4524  
 Colo., Denver—Johnson-Tudor Co., 6198 Colorado Blvd. AT 8-1513  
 Idaho, Boise—Starline Equipment Co., 503 S. 16th St. Phone 4-3821  
 Ore., Portland—Contractors Equipment Co., P. O. Box 2191, BE 5-4131  
 Utah, Salt Lake City—Archer Tractor, 1118 So. Main St. EM 3-3821  
 Wash., Seattle—Sahlberg Equipment Co., Inc., 5940 Fourth Ave. So. MO 6060

### CONVOY, INC., 3424 Navarre Rd., S. W., Canton 6, Ohio

Baskets (fibre), Bins, Boxes (fibre).

#### Representatives

Calif., Los Angeles—H. O. Bishop, 1717 Industrial, VA 5807  
 Calif., Oakland—E. C. Buehrer, 253 Fourth St. TE 6-2082

### COPPERLOY CORPORATION, 4103 Brookpark Rd., Cleveland 29, Ohio

Dock boards (magnesium), Dollies (pallet), Platforms (loading), Ramps (hose and yard).

#### Representatives

Calif., Berkeley—West Coast Engine & Equip. Co., 1077 Eastshore Hwy.  
 Calif., San Francisco—P. F. O'Donnell Co., 2298 Jerrold Ave.  
 Ore., Portland—Oregon Handling Equip. Co., 2949 N.W. St. Helens Rd.  
 Wash., Seattle—Cascade Handling Equip. Co., 410 Battery St.

### COST REDUCTION EQUIPMENT CO., 5200 Chakemco St., South Gate, Calif. LO 7-2487

Conveyors (belt), Hoists (skip), Trailers (factory and warehouse) Special handling and production equipment.

### CRANE HOIST ENGINEERING CORP., 6515 Salt Lake Ave., Bell, Calif.

Cranes (charging and drawing, gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, I beam overhead, monorail overhead), Hoists (air, bucket, chain, crane, electric, hand, monorail), Tractors (monorail), Trailers, Winches.

#### Branch

Calif., Oakland—3637 Adeline St. PI 5-5412



## CYCLOPS — DIVINE

Calif., Bakersfield—730 Chester Ave. PA 8-2622  
 Calif., Fresno—850 R St. AD 7-8054  
 Calif., Glendale—830 Thompson Ave. CH 5-2835  
 Calif., Oakland—954 60th St. OL 2-2060  
 Calif., Riverside—3485 Orange St. OV 3-4717  
 Calif., Sacramento—1331 T St. GI 2-7261  
 Calif., San Diego—617 Harbor Insur. Blvd. BE 3-3735  
 Calif., San Francisco—440 Bayshore Blvd. VA 4-1575  
 Calif., San Jose—460 Park Ave. CY 5-3310  
 Ore., Portland—400 N. E. 11th Ave. BE 2-8105  
 Utah, Salt Lake City—3062 Main St. HU 5-6321  
 Wash., Seattle—1150 Fairview Ave. No. MA 8164  
 Wash., Spokane—So. 125 Stevens. MA 4-0421  
 Wash., Tacoma—911½ Pacific Ave. MA 4551

### CYCLOPS IRON WORKS, 837 Folsom St., San Francisco 7, Calif., DO 2-6100

Cranes (gantry, hand power, jib, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, 1 beam overhead, locomotive overhead, monorail overhead), Grapples, Hoists (crane, electric), Trolleys.

### DARNELL CORP., 12000 Woodruff Ave., Downey, Calif.

Casters, Wheels (general industrial, hand truck, rubber tired, trailer).

See advertisement on page 14

**Branch**  
 Calif., San Francisco—681 Market St. SU 1-0413

**Representatives**  
 Ariz., Phoenix—Garrett Supply Co., 130 W. Madison St. AL 3-6104  
 Ariz., Tucson—L. J. Clarke & Co., 1925 Cedar Springs. Phone 4-6233  
 Calif., Long Beach—American Wholesale Hardware, 1500 W. Anaheim St. Phone 612-61  
 Calif., Long Beach—Jones Hardware Co., 1501 Santa Fe. Phone 70-8435  
 Calif., Los Angeles—Andrews Hardware & Metal, 334 So. Main St. MU 6111  
 Calif., Los Angeles—W. T. Billard, Inc., 734 E. Third St. MU 8800  
 Calif., Los Angeles—Colson Equipment & Supply Co., 1317 Willow St. TR 5743  
 Calif., Los Angeles—Pacific Mill & Mine Supply, 2338 E. Eighth St. TR 7501  
 Calif., Los Angeles—Union Hardware & Metal Co., 5555 Ferguson Dr. RA 3-2411  
 Calif., Los Angeles—Warren & Bailey Co., 3522 Garfield Ave. RA 7-7181  
 Calif., Los Angeles—Yaeger & Sons, 1512 E. Olympic. TR 5576  
 Calif., San Bernardino—Reliable Bearing & Supply Co., 263 So. E St. Phone 8-6565  
 Calif., San Diego—Mission Pipe & Supply Co., 200 Ninth St. BE 3-6633  
 Calif., San Diego—Warren & Bailey Co., 266 Seventh Ave. BE 3-4976  
 Calif., San Francisco—Colson Equipment & Supply Co., 20 Beale St. GA 1-0290  
 Calif., San Francisco—Elder & Co., 399 Seventh St. UN 1-5480  
 Calif., San Francisco—Warren & Bailey Co., 198 Second St. EX 2-6240  
 Calif., Santa Ana—Mission Pipe & Supply Co., 615 E. Washington Ave. KI 2-8871  
 Colo., Denver—Murray Sales Co., 16 Wazee Market. KE 4-5296  
 Mont., Billings—Bearings Supply Co., 15 No. 31st St. Phone 9-1195  
 Nev., Las Vegas—Vegas Material Co., 1025 So. Main St. Phone 2019  
 N. Mex., Albuquerque—Safway Steel Scaffold Co., 2702 Vista Larga Ave. N.E. Phone 6-1713  
 Ore., Portland—F. E. Bennett Co., 426 N.W. Sixth Ave. AT 2321  
 Utah, Salt Lake City—Webb Co., 3341 So. 1940 East. Phone 84-4811  
 Wash., Seattle—J. W. Ralston Co., 1401 W. Garfield. AL 8383  
 Wash., Spokane—Standard Cycle & Supply Co., 1811 E. Sprague Ave. LA 3321

### DEERE, JOHN, INDUSTRIAL DIV., 3300 River Dr., Moline, Ill.

Loaders (portable, self-propelled), Tractors (gasoline warehouse, gasoline crawler), Trailers (tractor, rubber tired), Fork-lift.

**Branches**  
 Calif., San Francisco—651 Brannan St.  
 Ore., Portland—215 S.E. Morrison St.  
 Utah, Salt Lake City—1841 W. 1700 So.

### DEGEN, L. P., BELTING CO., 260 Mission St., San Francisco 5, Calif. EX 2-3820

Belting (chain link, composition, conveyor, fabric, canvas, elevator, endless, wire, other), Belt fasteners and belt lacing, Conveyors (belt, bucket), Elevators (belt, bucket), Pulleys, Trucks, Oil seals, Hydraulic packages.

**Representatives**  
 Calif., Los Angeles—Don Smith Co., 3219 So. Figueroa. PR 0265  
 Calif., San Mateo—Wallace Degen, 389 Glendale Rd. DI 3-7655

### DELUXE METAL FURNITURE CO., 500 Struthers St. W., Warren, Pa.

Shelving (steel storage), Cabinets (storage and wardrobe).

**Representatives**  
 Ariz., Phoenix—Marston Supply Co., 3209 No. Central Ave. CR 7-5477  
 Calif., Los Angeles—Paramore Baier, 146 So. Robertson Blvd. BR 2-4123  
 Calif., Sacramento—A. W. Herron, 215 Twelfth St. GI 3-4621  
 Calif., San Francisco—Enterprise Commercial, 20 Pacific Ave. EX 7-0618  
 Colo., Denver—Peterson Co., 4949 Colorado Blvd. DE 3-5434  
 Utah, Salt Lake City—Pembroke's 24 E. Broadway. Phone 4-8424  
 Wash., Seattle—A. Timmerman Egmt. Co., 919-21 Western Ave. MU 6332

### DEMING CO., THE, Salem, Ohio

**Pumps.**  
**Representatives**  
 Calif., Los Angeles—Simonds Pump Co., 455 E. Fourth St.  
 Calif., San Francisco—Simonds Machinery Co., 816 Folsom St.  
 Wash., Seattle—Polson Implement Co., 631 Western Ave.  
 Wash., Spokane—Polson Implement Co., E. 210 Montgomery St.

### DEMPSTER BROTHERS, INC., Springdale Ave. & Southern Railroad, Knoxville, Tenn.

System consisting of truck-mounted unit handling many types and sizes of containers.

**Branch**  
 Calif., San Carlos—H. J. Nolan, Travel Inn—Room 217, 950 El Camino Real. AD 4-6228

**Representatives**  
 Ariz., Phoenix—Mike Murphy, 143 W. Fairview Lane. WI 3-5853  
 Calif., San Mateo—Jack Jank (Dempster Baler only), 3836 Colegrove St. FI 5-5217  
 Colo., Denver—Elder Trailer & Body, Inc., 4330 Race St. AM 6-1781  
 Mont., Helena—Montana Powder & Equipment Co., P. O. Box 1638. Phone 2784  
 Utah, Salt Lake City—Material Handling Engineers, Inc., 334 W. 17th St. Phone 5-8751  
 Wash., Seattle—Lars Carlson, 3004 W. Laurelhurst Dr. PL 6559

### DERBY SEALERS, INC., Derby, Conn.

**Packaging machinery.**  
**Representatives**  
 Ariz., Phoenix—Frank A. Biederman Assoc., 1033 E. San Juan. CR 4-0775  
 Calif., Los Angeles—Los Angeles Supply Co., 2261 So. Atlantic Blvd. AN 9-0451  
 Calif., Los Angeles—Western-Sinclair, Inc., 1234 Factory Pl. MI 9693, MA 9-2619  
 Calif., San Francisco—Diagraph-Bradley Distributing Co., 340 Fourth St. SU 1-4928, SU 1-5536  
 Colo., Denver—Denver Tape Printing Co., 1216 Galapago. AL 5-7341

### DIAGRAPH-BRADLEY INDUSTRIES, INC., P. O. Box 269, Herrin, Ill.

Shipping room supplies (marking, labeling and stitching equipment, etc.).

**Representatives**  
 Ariz., Tucson—L. J. Clarke & Co., 2625 No. 1st Ave. Phone 4-6233  
 Calif., Los Angeles—Shipping Room Supply Co., 1547 Estudillo Ave. AN 1-2104  
 Calif., San Francisco—Diagraph-Bradley Distributing Co., 840 Fourth St. SU 1-5536  
 Colo., Denver—Hahn Equipment Co., 1795 Sheridan Blvd. BE 7-0433 thru 7-0436  
 Ore., Portland—Oregon Handling Equipment Co., 2949 N.W. St. Helens Rd. CA 8-4196  
 Utah, Ogden—The Geo. W. Goddard Co., 24th St. and Wall Ave. Phone 2-7546  
 Wash., Seattle—Secord Sales Co., 95 Connecticut St. MA 0737

### DIAMOND CHAIN CO., 402 Kentucky Ave., Indianapolis 7, Ind.

Chains (roller, conveyor), Sprockets, Couplings (shaft, flexible).

See advertisement on page 83

**Branches**  
 Calif., Los Angeles—900 Santa Fe Ave. VA 1723  
 Calif., Menlo Park—595 Santa Cruz Ave. DA 3-4940

**Representatives**  
 Ariz., Phoenix—Semon Bearing & Supply Co., 325 No. Third Ave.  
 Ariz., Tucson—Tucson Bearing Co., Inc., 1110 So. Park Ave.  
 Calif., Arcata—Reliable Hardware Co., Inc., 11th and "M" Sts.  
 Calif., Bakersfield—Power Transmission Equipment Co., 109 23rd  
 Calif., Fresno—Pacific Mill & Mine Supply Co., Inc., 530 Van Ness Ave.  
 Calif., Los Angeles—Degen-Fiege Co., 4559 E. Sheila St.  
 Calif., Los Angeles—Power Transmission Equipment Co., 4501 Firestone Blvd.  
 Calif., Sacramento—Western Industrial Supply Co., 905 "G" St.  
 Calif., San Francisco—Horsford Bros., 944 Folsom St.  
 Calif., San Francisco—Monarch Corp. Supply Div., 55 New Montgomery St.  
 Calif., San Leandro—Monarch Corp. Supply Div., 2075 Williams St.  
 Calif., Santa Clara—Monarch Corp. Supply Div., 2455 The Alameda  
 Calif., Stockton—Hickinbotham Bros. Ltd., 536 So. Aurora St.  
 Colo., Denver—Colorado Bearing Co., 1618 Wazee St.  
 Idaho, Boise—Idaho Chain & Sprocket, Inc., 2801 Warm Springs Ave.  
 Idaho, Pocatello—Pocatello Chain & Sprocket, Inc., 2703 Pole Line Rd.  
 N. Mex., Albuquerque—The Harry Cornelius Co., 1510 Second St. N.W.  
 Ore., Eugene—Bearing Sales & Service, Inc., 225 Seventh Ave., W.  
 Ore., Portland—Bearing Sales & Service, Inc., 1645 N.W. Hoyt St.  
 Ore., Portland—Woodbury & Co., Swan Island, 5851 No. Lagoon  
 Ore., Roseburg—Bearing Sales & Service, Inc., 729 S.E. Stephens St.  
 Utah, Salt Lake City—Utah Sprocket & Machinery Co., Inc., 717 So. Fourth, W.  
 Wash., Aberdeen—Mill & Logging Supply Co., 313 So. "H" St.  
 Wash., Everett—Washington Belting & Rubber Co., 2923 Grand Ave.  
 Wash., Longview—Bearing Sales & Service, Inc., 743 Commerce Ave.  
 Wash., Seattle—Washington Belting & Rubber Co., 2763 First Ave., So.  
 Wash., Tacoma—Washington Belting & Rubber Co., 672 E. 11th St.

### R & J DICK CO., P. O. Box 388, Pas-saic, N. J.

Belting (chain link, composition, conveyor, fabric, canvas, elevator, endless), Belt fasteners and belt lacing, Chains, Pulleys (conveyor, other) Slings (belt, canvas).

See advertisement on page 190

**Branches**  
 Calif., Maywood—5276 Atlantic Blvd. LO 8-4014  
 Calif., San Francisco—510 Bryant St. SU 1-1341  
 Wash., Seattle—307 Maritime Bldg. MU 1922

**Representatives**  
 (Contact any of the three branches for name of nearest distributor.)

### DICO CO., 200 S. W. 16th St., Des Moines 5, Ia.

Racks (drain stands), Tires (industrial truck and trailer), Trucks (bag, barrel, drum, box type, factory and warehouse, hand), Wheels (general industrial, hand truck, rubber tired, solid rubber), Wheelbarrows.

**Representatives**  
 Calif., San Francisco—W. W. Wohlforth Co., 420 Market St. YU 2-2616  
 Utah, Salt Lake City—J. Lester Barlow, 509 Beason Bldg. Phone 3-5456

### DIVINE BROTHERS CO., 200 Seward Ave., Utica 1, N. Y.

Casters, Wheels (general industrial, hand truck, rubber tired, trailer).

**Representatives**  
 Calif., Los Angeles—Utilities Supply Co., 1738 E. 15th St. PR 3178



## DODGE — EMHART

Colo., Denver—Hahn Equipment Co., 1745 Blake St. KE 4-5500  
Ore., Portland—Oregon Handling Equipment, 2949 St. Helens Rd. AT 5792  
Utah, Salt Lake City—Modern Equipment Co., 52 W. Second So. St. Phone 9-2171  
Wash., Seattle—J. W. Ralston Co., 1401 W. Garfield. AL 8383

### DODGE MFG. CORP., So. Union St., Mishawaka, Ind.

Pulleys (conveyor, other), Speed reducers, Pillow block bearings, V-belt drives, Chain drives, Fluid drives.

#### Branch

Calif., San Francisco—55 New Montgomery St., DO 2-8434

#### Representatives

Calif., Pleasant Hill—M. K. Hendrickson, 535 Shelly St. MU 5-6726  
Calif., Rivera—R. C. Kingsbury, 744 Industry Ave. RA 3-8621  
Calif., San Francisco—L. O. Carroll, 55 New Montgomery St. DO 2-8434  
Colo., Denver—D. M. Leckey, 1483 So. Eudora, SK 6-5847  
Ore., Oswego—M. M. Studebaker, 1011 Bayberry Rd. NE 6-5081

### CHAS. WM. DOEPKE MFG. CO., 8913 Blue Ash Rd., Rossmyrne, Cincinnati 42, Ohio

Baskets (metal), Bins, Boxes (tote), Racks (tote box).

#### Representatives

Ariz., Phoenix—E. D. Flournoy Co., 420 So. Third St. AL 2-8607  
Calif., Los Angeles—M. E. Canfield Co., 419 E. Third St. MA 6-6066  
Calif., South San Francisco—Hammerslag Equipment Co., 110 Freeway Blvd. JU 3-5757  
Colo., Denver—Murray Sales Co., 16 Wazee Market KE 4-5296  
N. Mex., Albuquerque—E. D. Flournoy Co., 217 Sixth St. S. W. Phone 3-1055  
Ore., Portland—Air-Mac, Inc., 111 S.E. Grand Utah, Salt Lake City—Modern Equipment Co., 52 W. Second So. St. Phone 9-2171  
Wash., Seattle—Air-Mac, Inc., 8838 Fourth Ave. So. MU 8383  
Wash., Spokane—Air-Mac, Inc., P. O. Box 1125  
Wash., Yakima—Air-Mac, Inc., 313 No. Grandview

### DOWNS CRANE & HOIST CO., 540 W. Vernon Ave., Los Angeles 37

Cranes (gantry, hand power, jib, pillar, swing bucket, double beam overhead, electric traveling overhead, hand power traveling overhead, I-beam overhead), Grabs, Grapples, Hoists (crane, derrick, drum, electric, skip, traveling, other), Slings (belt, canvas, chain, rope, wire rope, other), Tongs, Trolleys, Crane wheels, Winches and Windlasses.

See advertisement on page 179

### DROTT MFG. CO., 3126 So. 27th St., Milwaukee 15, Wis.

Grapples, loaders and unloaders, Pallet Loaders.

#### Branch Offices

Calif., Hayward—1775 St. Andrew St. DE 2-3767  
Wash., Seattle—2564—38th Ave., W. AL 0742 (Distributors in all major Western cities)

### DUCT-O-WIRE CO., 6511 Salt Lake Ave., Bell, Calif.

Electric crane and monorail conductor systems

See advertisement on page 172

#### Representatives

Calif., Bell (Los Angeles)—Crane Hoist Engineering Corp., 6615 Salt Lake Ave. LO 5-8255  
Calif., Oakland—Crane Hoist Engineering Corp., 3637 Adeline St. PI 5-5412  
Calif., San Francisco—Robert J. Arthur, 420 Market St. YU 2-3483

### DUFF-NORTON CO., 2709 Preble Ave., Pittsburgh 30, Pa.

Hoists (electric, hand, portable), Jacks (hydraulic, lift, screw, others)

#### Representative

Calif., San Francisco—R. Ratcliff, 1016 Howard St. HE 1-4755

### DUFF-NORTON CO., COFFING HOIST DIV., 800 Walter St., Danville, Ill.

Hoists (chain, electric, hand, portable), Trolleys, Warehouse (Duff-Norton Co.)

Calif., San Francisco—1016 Howard St. HE 1-4755

#### Representatives

Calif., Belmont—R. A. Ratcliff, 1300 Sunny-slope Ave. LY 3-6070  
Colo., Denver—F. R. Elsner, 842 So. York St. SP 7-5131  
N. Mex., Albuquerque—J. G. Austin, 1505 Las Lomas, N.E. Phone 5-9494 (Distributors in all major cities)

### EASTMAN TAG & LABEL CO., 505 Seventh St., San Francisco, Calif.

Tags (shipping, point-of-sale, address labels).

See advertisement on page 114

#### Representatives

(Sales offices in all principal Western cities.)

### EAST SIDE MFG., INC., 1801 Bluff Rd., Montebello, Calif.

Pumps (liquid handling), Trucks (electric).

### ECONOMY ENGINEERING CO., 4511 W. Lake St., Chicago 24, Ill.

Elevators (barrel, package, portable tiering), Hoists (portable), Stackers (electric portable, hand portable), Trucks (bag, barrel, drum, die handling, elevating or lifting, paper roll, electric tiering).

#### Representatives

Ariz., Phoenix—Edwards Equip. Sales Co., P. O. Box 4306. AL 8-8165  
Calif., Los Angeles—McKinley Equipment Corp., 1557 Esperanza St. AN 9-0567  
Ore., Portland—A. A. Schuler, 1128 S.W. Market St. CA 3-7901  
Wash., Seattle—Burleigh Co., 5245 Pullman Ave. FI 5245

### EDERER ENGINEERING CO., 2931 First Ave. So., Seattle 4, Wash.

Cranes (charging and drawing, gantry, hand power, jib, pillar, swing, bracket, overhead-double beam, electric and electric traveling, foundry, hand power traveling, "I" beam, monorail) Grapples, Hoists (bucket, chain, crane, drum, electric, monorail, traveling, other) Crane Trolleys.

### EDISON, THOMAS A., EDISON STORAGE BATTERY DIV., West Orange, N. J.

Storage batteries.

#### Branches

Calif., Los Angeles—5225 Wilshire Blvd. WE 8-8090  
Calif., San Francisco—1174 Howard St. HE 1-0322  
Wash., Seattle—310 Ninth Ave. No. Phone MA 1938

### EDWARDS, E. H., CO., Butler Rd., South San Francisco, Calif. PL 6-2115

Wire rope.

#### Branches

Calif., Rivera—8454 Bermudez St. RA 3-2060, or 3-2209  
Ore., Portland—2690 N.W. Nicoki. IA 3-7351  
Wash., Seattle—504 W. Idaho. MA 2218

### ELECTRIC MARKETEE MFG. CO., 2195 W. Hwy. 99 (at New Jersey), Redlands, Calif. Phone 3-2447

Carts (electric cars and trucks), Trailers, Trucks (industrial electric).

#### Representatives

Calif., Montebello—Eastside Manufacturing Co., 1801 Bluff Rd.  
Wash., Seattle—W. S. Brown, Inc., 820 Jefferson

### ELECTRIC PRODUCTS CO., 1725 Clarkstone Rd., Cleveland 12, Ohio Battery chargers.

#### Representatives

Ariz., Phoenix—Howard Jordan Co., 1007 Grand Ave. AL 2-5183

Calif., Burlingame—Donald T. Elliott, 1229 Burlingame Ave. DI 4-2518  
Calif., Los Angeles—D. B. Cole & Co., 557 E. Walnut St. RY 1-8730  
Colo., Denver—Hubert Kaub & Co., 1025 Santa Fe Dr. MA 3-4606  
Ore., Portland—J. A. Tudor & Assoc., Inc., 1004 S.E. Belmont. BE 2-1188  
Wash., Seattle—Muth-Richards Co., 1804 Bush Pl. CA 2128

### ELECTRIC STEEL FOUNDRY CO., 2141 N. W. 25th, Portland 10, Ore.

Chains, Conveyors (chain or link, continuous flow, drag and flight), Grapples, Wire rope, Dragline buckets, Shovel dipper, Two-piece bucket and dipper teeth, Cutting edges, Wire rope fittings, Stainless steel castings, Manganese alloy steel castings, Stainless pipe, tube, fittings, Logging rigging, Woodmill equipment, Construction equipment, Stainless pipe tubing and fittings.

#### Branches

Calif., Emeryville—1280 65th St. OL 4-2732  
Calif., Los Angeles—4600 Pacific Blvd. LU 1-7251  
Ore., Eugene—1464 W. Sixth St. Phone 4-6171  
Utah, Salt Lake City—P. O. Box 1379. Phone 8-0803  
Wash., Seattle—1131 W. Hanford St. EL 4161  
Wash., Spokane—N. 1327 Washington St. FA 4507

### ELECTRIC STORAGE BATTERY CO. see EXIDE INDUSTRIAL DIV.

### ELECTRIC WHEEL CO., 1100 No. 28th St., Quincy, Ill.

Axles (trailer or truck), Trailers (factory and warehouse), Wheels (general industrial, hand truck, rubber tire, tractor, trailer).

#### Representative

Calif., San Francisco—Ira G. Perin Co., 575 Howard St. GA 1-1827

### ELECTRO LIFT, INC., 204 Sargeant Ave., Clifton, N. J.

Hoists (drum, electric, monorail, portable, traveling, other).

#### Representative

Calif., Los Angeles—Irrving G. King & Co., 821 Mateo St.

### ELIZABETH IRON WORKS, INC., P. O. Box 360, Green Lane, Elizabeth, N. J.

Dock boards, Racks (portable), Ramps.

#### Representatives

Calif., Los Angeles—M. E. Canfield Co., 419 E. Third St.  
Calif., Los Angeles—James P. Kinney Co., 5141 Anaheim Telegraph Rd.  
Calif., San Francisco—E. C. Buehrer Associates, 527 Folsom St.  
Calif., San Francisco—Hammerslag Equipment Co., 7 Front St.  
Calif., South Gate—Cost Reduction Equipment Co., 5200 Chakemco St.

### ELWELL-PARKER ELECTRIC CO., 4509 St. Clair Ave., Cleveland 3, Ohio

Tractors (electric warehouse), Trucks (bag, barrel, drum, die handling, elevating or lifting, factory and warehouse, electric fork, industrial, gasoline lift, hydraulic lift, power-driven lift, packing house, paper roll, sheet handling, skid handling, electric tiering, other).

See advertisement on page 62

#### Representatives

Calif., Lynwood—J. W. Lafferty Co., 11871 So. Atlantic Ave. NE 6-1828  
Calif., San Francisco—Ira G. Perin Co., 575 Howard St. GA 1-1827  
Colo., Denver—Landes, Zachary & Peterson, 2500 W. Seventh St. MA 3-6203  
Wash., Seattle—Colby Steel & Mfg. Co., 65 Horton St. EL 4388

### EMHART MFG. CO., see STANDARD-KNAPP DIV.



## ENGINEERING — FIBREBOARD

### ENGINEERING PRODUCTS CO., DIV. OF LEDEEN, INC., 3350 No. Gilman Rd., El Monte, Calif.

Hoists (air, hydraulic), Trucks (dolly, electric fork, hand, industrial, hand lift, hydraulic lift, pallet) Winches and Windlasses.

See advertisement on page 186

#### Representatives

Ariz., Phoenix—Lee Redman Equip. Co., 610 So. 19th Ave. AL 8-3794  
Calif., Bakersfield—Hopper Machine Wks., 301 26th St. Phone 4-4991  
Calif., Eureka—Eureka Boiler Wks., Foot of S St. HI 2-1881  
Calif., Oakland—The Otrich Co., 3664 Grand Ave. TE 2-3781  
Colo., Denver—Patten Engineering Co., 1745 Blake St. TA 5-3545  
Nev., Reno—Sierra Machinery Co., 307 Morrill Ave. Phone 2-6981  
N. Mex., Albuquerque—A. E. Boyd Equipment Co., 3108 Fourth St., N.W. Phone 4-6016, or 4-4033  
Ore., Eugene—American Steel & Supply Co., 44 7th Ave. E. Phone 5-0373  
Ore., Medford—American Steel & Supply, 703 Grape. Phone 2-7181  
Ore., North Bend—Industrial Steel & Supply Co., P. O. Box 824, SK 9-2731  
Ore., Portland—Portland Engineering Co., 10895 N.W. Cornell Rd. MI 4-2611  
Utah, Salt Lake City—National Equipment Co., 101 W. 2nd So. St. EM 2-8878  
Wash., Seattle—Standard Equipment Sales, 1731 1st Ave. SE 1955  
Wash., Spokane—General Machinery Co., E. 3500 Riverside Ave. KE 1535

### EQUIPMENT ENGINEERING SERVICES, see SULLIVAN, ED.

### EQUIPMENT MANUFACTURING INC., 21550 Hoover Rd., Detroit 5, Mich.

Bins, Boxes for Shipping (steel), Racks (pallet, storage, coil), Trailers (factory and warehouse).

#### Representatives

Ariz., Phoenix—E. D. Flournoy Co., 420 So. Third St. AL 2-8607  
Calif., Los Angeles—Green-Penny Co., 421 E. Washington Blvd. RI 8-1191  
Calif., Oakland—Green-Penny Co., 2211 San Pablo Ave. GL 1-8555  
Colo., Denver—Landes, Zachary & Peterson Co., 275 Kalamath St. MA 3-6203  
Idaho, Idaho Falls—Arnold Machinery Co., Inc., 1255 W. Broadway. Phone 3672  
N. Mex., Albuquerque—E. D. Flournoy Co., 217 Sixth St. Phone 3-1055  
Ore., Portland—Air-Mac, Inc., 1435 S.E. Union Ave. FI 6524  
Utah, Salt Lake City—Arnold Machinery Co., Inc., 433 W. Second So. St. DA 2-5631  
Wash., Seattle—Air-Mac, Inc., 2838 Fourth Ave. MU 3388

### EQUIPTO DIV., AURORA EQUIPMENT CO., 422 Cleveland, Aurora, Ill.

Bins, Carts (hand, push, other), Racks (storage), Trucks (hand).

#### Branches

Calif., Los Angeles—2501 Yates. RA 3-4529  
Calif., San Francisco—2165 Market St. KL 2-2958

Colo., Denver—1126 12th St. KE 4-8857

Ore., Portland—6635 N.E. Hancock.

Wash., Seattle—4310 Roosevelt Way. ME 6828

### ERIEZ MFG. CO., 1945 Grove Dr., Erie, Pa.

#### Magnets

#### Branch

Calif., Los Angeles—Lee Barron, 5435½ E. Beverly Blvd. RA 3-3510

#### Representatives

Calif., San Francisco—Dick Dietrich Associates, 1355 Market St. KL 2-3611  
Calif., San Francisco—Power-Mac Corp., 467 So. Van Ness Ave. UN 1-1430  
Colo., Denver—Aldredge & McCabe, 847 E. 17th Ave. AL 7-7496  
Wash., Seattle—Fred G. Greaves Co., 3215 Western Ave. AL 5111

### EVANS PRODUCTS CO., 13101 Eckles Rd., Plymouth, Mich.

Evans DF loader, Auto-loader.

#### Branch

Calif., Los Angeles—615 W. P. Story Bldg. VA 9564

### EXIDE INDUSTRIAL DIV., THE ELECTRIC STORAGE BATTERY CO., 42 So. 15th St., Philadelphia 2, Pa.

Batteries, storage.

#### Branches

Calif., Los Angeles—1043 So. Grand Ave. RI 9-4436  
Calif., San Francisco—6150 Third St. MI 7-3100  
Colo., Denver—234 Commonwealth Bldg. MA 3-7793  
Ore., Portland—1224 S.W. Morrison St. CA 2-3778  
Wash., Seattle—500 Wall St. EL 1377

### F. A. B. MFG. CO., 1249 67th St., Oakland 8, Calif.

Axles (truck, trailer, front wheel drive conversions) Trailers (motor truck and tractor), Trucks (motor).

#### Representatives

Ariz., Phoenix—Welch Mfg. Co., 533 W. Jefferson St. Phone 3-3002  
Calif., Los Angeles—Lambert Co., 1202 E. Olympic Blvd. MA 6-9561  
Colo., Denver—Woeber Auto Body & Mfg. Co., 4950 Jackson St. FL 2366  
Idaho, Boise—Boise-White Truck & Equipment Co., 214 Royal Ave. Phone 2-3666  
Mont., Great Falls—Erwin H. Johnson, Inc., 1020 Third St. N. W. Phone 6-6662  
N. Mex., Albuquerque—Winter-Weiss Co., 6130 No. Second St. Phone 4-3421  
Ore., Portland—Rudy Yost Equipment Co., 8603 S. E. McLoughlin Blvd. BE 3317  
Utah, Salt Lake City—Williamson's, Inc., 1103 So. Sixth St. Phone 22-5658  
Wash., Seattle—Truck Welding & Equipment Co., 737 Ninth Ave. No. EL 1172  
Wash., Spokane—American Machine Co., W. 1026 Broadway. FA 2591

### FAIRBANKS CO., THE, 393 Lafayette St., New York 3, N. Y.

Carts (hand and push), Casters, skids, Trailers (factory and warehouse), Trucks (bags, barrel, drum, dolly, elevating or lifting, factory and warehouse, hand, packing house, paper roll), Wheels (general industrial, hand truck, rubber tired, trailer).

See advertisement on page 195

#### Representative

Calif., Beverly Hills—Albert Tuch & Associates, 468 So. Spaulding Dr. BR 2-5974

### FAIRBANKS, MORSE & CO., 600 So. Michigan Ave., Chicago 5, Ill.

Engines (gas, diesel), Gearmotors, Generators (electric, gasoline, diesel), Motors (electric, DC, electric, poly-phase and single-phase AC, variable speed), Pumps, power (turbine, centrifugal), Scales (automatic, conveyor, counting, monorail, packaging, portable, warehouse).

See advertisement on page 10

#### Branch Offices

Calif., Fresno—2379 So. G St. AM 6-8644  
Calif., Los Angeles—4535 So. Soto St. LU 7-8151  
Calif., San Francisco—630 Third St. EX 2-5855  
Colo., Denver—4995 Colorado Blvd. FR 7-8845  
Ore., Portland—105 S.E. Taylor St. BE 2-0131  
Utah, Salt Lake City—153 W. 2nd So. St. EM 3-2108  
Wash., Seattle—668 Lane St. MU 3450

### FALK CORP., 3073 W. Canal St., Milwaukee 1, Wis.

Castings (steel), Couplings (shaft, flexible), Drives (gear, shaft mounted), Gearmotors, Gears (single helical, herringbone), Increasers (speed), Machining (contract), Reducers (speed) Weldments.

See advertisement on page 33

#### Representatives

Calif., Glendale—E. E. Forslund, 1068 S. Vall Ave. RA 3-8466  
Calif., San Francisco—Transmission Engineering Co., 53 Stevenson St. SU 1-4738  
Colo., Denver—H. H. Klackner, 916 Broadway. AL 5-8104  
Ore., Portland—Western Machinery Corp., 1035 S. E. Ninth Ave. BE 6-4117  
Wash., Seattle—A. T. Harris Co., 1500 Westlake No. AL 8460

### FARQUHAR, A. B., DIVISION, OLIVER CORP., 142 No. Duke St., York, Pa.

Belt (conveyor), Conveyors (bag and bale, belt,

continuous flow, drag, flight, foundry, gravity roller, live roller, overhead, portable, skate, bulk).

#### Representatives

Calif., Los Angeles—Brumley-Donaldson Co., P. O. Box 58281, Vernon Station  
Calif., Los Angeles—Irving G. King Co., 821 Mateo St.  
Utah, Salt Lake City—Arnold Machinery Co., 427 W. Second So.  
Wash., Seattle—Adelman Machinery Co., 520 First Ave., So.

### FAULTLESS CASTER CORP., 1521 No. Garvin, Evansville 7, Ind.

Casters, Wheels (general industrial, hand truck, rubber tired, trailer), Floor truck locks.

#### Branch

Calif., Los Angeles—1252 So. Boyle. AN 8-7243

#### Representatives

Calif., Los Angeles—Garrett Supply Co., 3844 So. Santa Fe Ave. LU 8-7221  
Calif., San Francisco—C. W. Marwedel, 1235 Mission St. UN 1-2125  
Colo., Denver—Armstrong Caster Co., 465 Santa Fe Dr. AC 3777  
Ore., Portland—John Negus Co., 3005 N. E. Sandy Blvd. BE 4-5515  
Wash., Seattle—John Negus Co., 1016 First Ave. So. EL 5006, Local 16

### FEEDRAIL CORP., 125 Barclay St., New York 7, N. Y.

Electrification Systems for cranes, hoists, conveyor test lines, stockers, etc.

#### Representatives

Calif., Los Angeles—Allied Industries, 412 Seaton St. MU 2244  
Calif., San Francisco—Eichorn & Melchior, 740 Bryant St. DO 2-1038  
Colo., Denver—Newell L. Willard Co., 2144 Welton St. AC 2-4861  
Wash., Seattle—E. A. Will, 534 First Ave. So. EL 2716

### FERGUSON, HARRY J., CO., 115 West Ave., Jenkintown, Pa.

Conveyors (belt, chain or link, gravity roller, live roller, pallet, portable, skate, slot), Rollers (conveyor), Wheels (conveyor).

#### Representatives

Calif., Los Angeles—W. T. Billard Co., 734 E. Third St.  
Ore., Portland—Charles H. Day Co., 225 S.W. First Ave.  
Utah, Salt Lake City—Equipment Supply, 16 Post Office Place  
Wash., Seattle—Air-Mac Equipment Co., 3838 Fourth Ave. So.

### FETTERMAN-COLFAX CO., E. 1420 Fifth Ave., Spokane 31, Wash.

Belt (conveyor, fabric, canvas, elevator), Carts (hand, push), Conveyors (bag and bale, belt, bucket, chain or link, continuous flow, drag, flight, foundry, gravity roller, live roller, portable, screw, skate, slot, vertical), Elevators (belt, bucket, continuous flow), Loaders (portable, self-propelled), Pulleys (conveyor), Rollers (conveyor), Stockers (portable electric), Tables (conveying), Trucks (bag, barrel, drum, box type, hand), Wheels (conveyor), Dumpers (seed box, hand, power).

### FIBREBOARD PAPER PRODUCTS CORP., 475 Brannan St., San Francisco 19, Calif. EX 2-3657

Boxes for shipping (corrugated, fibre and fibre board).

#### Branches

Ariz., Phoenix—3300 No. Central Ave. AM 5-5904  
Calif., Fresno—Suite 5, 64 No. Fulton St. Phone 2-2119  
Calif., Los Angeles—4444 Pacific Blvd. LU 7-5121  
Calif., Oakland—290 26th St. TW 3-5041  
Calif., Sacramento—2008 28th St. GL 7-5738  
Calif., San Diego—330 Spreckles Bldg., 121 Broadway. BE 2-3036  
Calif., San Jose—1275 Lincoln Ave. CY 3-8348  
Calif., San Francisco—1789 Montgomery St. DO 2-6900  
Calif., Stockton—West Church St. HO 4-2837  
Colo., Denver—2525 So. Delaware St. SH 4-3251  
Idaho, Boise—402—Continental Bank Bldg. Phone 4-3842  
Mont., Billings—Rm. 226 Gullard Wilkins Bldg., 111 No. 30th St. Phone 2-3075  
Ore., Portland—401-403 Terminal Sales Bldg. CA 8-3153  
Utah, Salt Lake City—319 Kearns Bldg. EM 4-7721  
Wash., Seattle—300 Skinner Bldg. MU 0440  
Wash., Yakima—415 So. 3rd Ave. Phone 2-5656



**DAVE FISCHBEIN CO., 2730 30th Ave., So., Minneapolis 6, Minn.**

**Stitching and Stitching Equipment.**

**Representatives**  
Calif., San Gabriel—R. D. Helms Co., 6737 No. Vista  
Calif., San Mateo—California Mill & Equipment Co., P. O. Box 1115  
Colo., Denver—E. P. Segelstrom, 1075 Locust St.  
Idaho, Twin Falls—C. Kenneth Brown, 401 Shoshone St., So.  
Ore., Portland—Reid-Strutt Co., Inc., 1015 S.E. Stark St.

**FLATON MACHINE WORKS, Broadway & West Primm Sts., St. Louis 11, Mo.**

**Torque controlling clutches.**

**Representatives**  
Calif., Los Angeles—Davis Material Handling Co., 5649 Alhambra Ave. CA 2-7197  
Calif., Oakland—Edward L. Parsons, 600 Sixteenth St. TW 3-1577  
Wash., Seattle—Berg-Evans Transmission Co., 616 Sixth Ave. So. EL 5092

**FLEXANGLE CORP., 278 Park Rd., West Hartford 7, Conn.**

**Racks (flexangle universal slotted angle system for storage).**

**Representative**  
Calif., Los Angeles—Andrew Co., 2479 Fletcher Dr. NO 4-1149

**FLEXIBLE STEEL LACING CO., 4607 Lexington St., Chicago 44, Ill.**

**V-Belt fasteners, Transmission and Conveyor belt lacing, Belt cutters.**

*See advertisement on page 170*

**Representatives**  
Calif., Long Beach—Newton Crum, 5621 The Toledo  
Calif., San Mateo—James E. McComb, 10 Jody Court.  
Wash., Seattle—John A. Marshall, 2403 W. 197th St. LI 5693

**FLEXOVEYOR MFG. CO., 1220 So. Acoma St., Denver 23, Colo. RA 2-0805**

**Bag flatteners, Conveyors (automatic, bag and bale, belt, pallet, portable, special and other), Elevators (barrel, package, other), Leaders (box car, truck, portable, self-propelled), Pallet loaders.**

**FOOD MACHINERY & CHEMICAL CORP., PACKING EQUIPMENT DIV. 3075 14th St., Riverside, Calif.**

**Belting (conveyor), Conveyors (automatic, bag and bale, belt, chain or link, continuous flow, flight gravity roller, live roller, overhead, pallet, portable, skate, slot, trolley, vibrating, special and other), Nailing machines (box and pallet making), Palletizer (automatic), Counters (recording), Rollers (conveyor), Trucks (bulk grain handling, hand, packing house), Wheels (conveyor, hand truck, rubber tired), Pallet loaders.**

**Branches**  
Ariz., Phoenix—1450 E. Henshaw Rd. AL 4-7118  
Calif., Fullerton—320 E. Santa Fe. LA 6-4723  
Calif., Lindsay—124 W. Apia St. Phone 2-2508  
Calif., Lodi—32 So. Main St. Phone 9-2196  
Calif., Los Altos—11320 Entrada Pl. WH 8-5218  
Calif., Los Angeles—5312 Pacific Blvd. LU 8-1386  
Calif., Los Angeles—5902 E. Washington Blvd. RA 3-2122  
Calif., San Francisco—875 Stevenson St. HE 1-7414  
Calif., Santa Paula—1409 E. Main St. Phone 1560

**FORKER CORP., see OHIO TRAM-RAIL DIV.**

**FORT STEUBEN METAL PRODUCTS CO., P. O. Box 248, Steubenville, Ohio**

**Steel shelving, Parts bins, Work benches, Shop equipment.**

**Representatives**  
Ariz., Phoenix—James P. Kinney Co., 1101 Grand Ave. AL 2-1558  
Calif., Los Angeles—James P. Kinney Co., 5141 Telegraph Rd. AN 9-7411  
Calif., Los Angeles—Multa Frame, Calif., Inc., 7333 Coldwater Canyon  
N. Mex., Albuquerque—James P. Kinney Co., 1706 Central Ave. S.E. Phone 2-2830

**FORT WORTH STEEL & MACHINERY CO., 3600 McCart St., Fort Worth, Tex.**

**Belting (V-type), Conveyors (screw, vertical), Elevators (bucket), Pulleys (conveyor).**

**Branches**  
Calif., Los Angeles—3026 E. Olympic Blvd. EN 3-6125-29  
Calif., San Francisco—248 Ninth St. UN 8-3037  
Colo., Denver—4975 Jackson St. FL 5-2294  
**Representatives**  
Ariz., Nogales—Occidental Electric Co.  
Ariz., Phoenix—Arizona Conveyor & Equipment Co., 610 W. Jefferson St.  
Ariz., Phoenix—Arizona Mining Supply Corp., P. O. Box 110, Phone 310  
Ariz., Tucson—AWECO Supply Co., 800 So. Park Ave. MA 4-1781  
Ariz., Yuma—Sturgess Implement Co., 355 Eighth St.

Calif., Aracataca—Munnell & Sherrill, 1041 F St.  
Calif., Cloverdale—Ukiah Wire Rope & Rigging Co., 29375 Redwood Hwy. So.  
Calif., Colton—Valley Industrial Supply Co., 401 So. Eighth St.  
Calif., Corcoran—Sawtelle & Rosprim, P. O. Box 938  
Calif., El Centro—W. H. Douthitt Steel & Supply Co., Route 1, Box 183  
Calif., El Centro—Winn Supply Co., 1562 San Diego Hwy.  
Calif., Fresno—Elliott Mfg. Co., 1735 Ventura  
Calif., Fresno—Pacific Mill & Mine Supply Co., 530 Van Ness Ave.  
Calif., Fresno—George M. Philpott Co., 2376 So. Railroad Ave. AM 4-9843  
Calif., Long Beach—Bay City Bearing Co., 2138 American Ave.  
Calif., Long Beach—Power Pumps Inc., 2480 Cherry St. NE 8-8718  
Calif., Los Angeles—Bearing Specialty Co., 225 W. 27th St. RI 9-5327  
Calif., Los Angeles—C. R. Davis Co., 422 E. Third St.  
Calif., Los Angeles—Pacific Mill & Mine Supply Co., 2338 E. Eighth St.  
Calif., Los Angeles—Western Belting & Mechanicals, Inc., 3525 E. Emery St.  
Calif., Maywood—Bearing Specialty Co., 4610 E. Slauson Ave. LU 8-2245  
Calif., Modesto—Girardi Bearing Co., 717 Eye  
Calif., Oakland—Adam-Hill Co., 7501 San Leandro Blvd.  
Calif., Ontario—Valley Industrial Supply Co., 1170 W. A St.  
Calif., Pomona—Reliable Bearing Co., 246 So. Towne Ave. LY 9-5007  
Calif., Sacramento—George M. Philpott Co., 1725 33rd St.  
Calif., Salinas—Girardi Bearing Co., 257 John  
Calif., San Bernardino—Reliable Bearing Co., 263 So. "E" St. Phone 8-6565  
Calif., San Diego—Winn Supply Co., 256 Seventh St.  
Calif., San Francisco—Adam Hill Co., 244 Ninth St.  
Calif., Santa Maria—The Bearing House Calif., Pescro Rd. P. O. Box 932, Phone 5-4283  
Calif., Santa Rosa—Santa Rosa Bearing Co., 622 Johnson St.  
Calif., Stockton—Girardi Bearing Co., 148 E. Miner Ave.  
Calif., Ukiah—Munnell & Sherrill, No. Hwy. 101  
Calif., Ventura—The Bearing House Calif., 1252 No. Ventura Ave. MI 3-8182  
Calif., Yuba City—Schmidt Pump House & Machine Shop, 726 Bridge St.  
Nev., Reno—Sierra Machinery Co., 307 Morrill  
Ore., Portland—Power Transmission Products, 1107 N.W. 14th Ave.

**FRANKLIN COTTON MILL CO., THE, 1108 Central Parkway, Cincinnati**

**Belting (cotton, solid woven).**

**Representatives**  
Distributors located in all major Western cities.

**FRUEHAUF TRAILER CO., 10940 Harper Ave., Detroit 32, Mich.**

**Semi-Trailers (closed van, open top, platform, dump, tank and bulk commodities), 4-Wheel trailers (all types), Truck bodies.**

**Branch Offices**  
Ariz., Phoenix—902 So. Seventh St. AL 8-6961  
Calif., Fresno—2550 Church St. AM 4-6551  
Calif., Los Angeles—1444 So. Alameda St. RI 7-6181  
Calif., Oakland—850 92nd Ave. LO 9-3331  
Calif., West Sacramento—3600 W. Capitol Ave. FR 1-6921  
Colo., Denver—4780 Vasquez Blvd. AL 5-1793  
Mont., Billings—1518 First Ave. No. Phone 5-5169  
Utah, Salt Lake City—1082 So. Second W. EL 9-3721  
Wash., Seattle—2411 Sixth Ave. So. MU 0487  
Wash., Spokane—1107 Third Ave. MA 4-9151

**FISCHBEIN — GAYLORD**

**FULLER CO., Bridge St., Catasauqua, Pa.**

**Conveyors (pneumatic).**

**Branches**  
Calif., Los Angeles—5225 Wilshire Blvd. WE 3-7126  
Calif., San Francisco—564 Market St. YU 6-5486  
Wash., Seattle—120 Sixth Ave. No. MU 3131

**GAIR, ROBERT, CO., 155 E. 44th St., New York 17, N. Y.**

**Shipping boxes (corrugated and fibre), Tote boxes.**

**Branch**  
Calif., Los Angeles—5120 So. Soto St. LO 8-1811

**GAR-BRO MFG. CO., 2415 E. Washington Blvd., Los Angeles 21, Calif.**

**Carts, Hoppers, Trailers, Trucks (dolly, factory and warehouse, hand, motorized hand), Wheelbarrows (industrial), Wheels (conveyor, general industrial, hand truck, rubber tired, tractor, trailer).**

*See advertisement on page 170*

**Representatives**  
Calif., Los Angeles—Garlinghouse, Fremont & Co., 6046 E. Washington Blvd., RA 3-8686  
Calif., San Francisco—Edw. R. Bacon Co., 17th and Folsom. HE 1-3700  
Ore., Portland—Loggers & Contractors Machinery Co., 24 So. Clay. EA 4123  
Utah, Salt Lake City—Arnold Machinery Co., 433 W. Second St. Phone 22-5631  
Wash., Seattle—A. H. Cox & Co., 1757 First Ave. So. MA 1121

**GAR WOOD INDUSTRIES, INC., Wayne, Mich.**

**Hoists and bodies, Winches and cranes.**

**Branch Offices**  
Calif., Richmond—Fourth and Wright St. BE 4-3914  
Calif., Vernon—4515 So. Soto St. LU 3-3211

**Representatives**  
Calif., Bakersfield—California Truck & Industrial Equipment Co., 2801 Brundage Lane  
Calif., Fresno—8-Ruckstell California Sales Co., 452 W. Yolo St.  
Calif., Pomona—Win Ward Co., 962 Price St.  
Calif., San Diego 13—Utility Trailer Sales Co., 1950 Main St.  
Colo., Denver—Woerber Auto Body & Manufacturing Co., 4950 Jackson St.  
Colo., Grand Junction—S & M Supply Co., Inc., 735 So. Fourth  
Hawaii, Honolulu—Home Welding Co. Ltd., 835 Keeaumoku St.  
Idaho, Boise—The Sawtooth Co., 1115 Grove St.  
Mont., Great Falls—Erwin H. Johnson Inc., 1620 Third St.  
Nev., Reno—Sierra Machinery Co., Inc., 307 Morrill Ave.  
N. Mex., Albuquerque—Construction Machinery Co., 2601 Second St.  
Ore., Portland 22—Fruehauf Trailer Co., 16700 S.E. McLaughlin Blvd.  
Utah, Salt Lake City—Trailmobile, Inc., 365 W. 1370 So.  
Wash., Seattle—Fruehauf Trailer Co., 2411 Sixth Ave., So.  
Wash., Spokane—Fruehauf Trailer Co., 1107 W. Third St.  
Wyo., Casper—Studer Tractor & Equipment Co., E. Yellowstone Hwy.

**GARDNER-DENVER CO. see KELLER TOOL DIV.**

**GATES RUBBER CO., 999 So. Broadway, Denver 17, Colo. SH 4-1911**

**Belting (fabric, canvas, endless, wire, other), Hose, Ropes, Sheaves, Tires.**

**Branches**  
Calif., Los Angeles—2850 E. 46th St. LU 8-9221  
Calif., South San Francisco—242 Shaw Rd. PL 6-3711  
Ore., Portland—2551 N.W. 30th Ave. CA 2-9641  
Utah, Salt Lake City—745 Genesee Ave.  
Wash., Seattle—3221 Western Ave. GA 3338

**GAYLORD CONTAINER CORP., DIV. OF CROWN ZELLERBACH CORP., 111 No. Fourth St., St. Louis 2, Mo.**

**Barrels for shipping (corrugated), Baskets (corrugated), Boxes for shipping (corrugated and fibre and fibre board), Tote boxes (fibre).**

**Branches**  
Calif., Los Angeles—1248 Hope St. RI 9-6288  
Calif., Oakland—9029 San Leandro. TR 2-7741



## GENERAL - GRAND

Calif., San Francisco—420 Market St. YU 6-1548  
Ore., Portland—1400 Public Service Bldg. CA 3-0757  
Wash., Seattle—719 White-Henry-Stuart Bldg. SE 6922

### GENERAL NAILING MACHINE CORP., 1324 Smyrna Ave., Sanger, Calif.

Box making machine (wooden), Box lidding machine, Conveyors (automatic, belt, chain or link, gravity roller, skate), Elevators (belt), Scales (packing, portable).

#### Representatives

Calif., Lodi—M. C. Locke, 111 Cross St. Phone 8-0114  
Calif., Riverside—Shippers Supply Service, 8355 Arlington Dr. OV 3-5175  
Calif., Visalia—L. E. Peck Co., P. O. Box 1285, RE 2-2756  
Wash., Yakima—Paxton Sales Corp., 102 No. Seventh Ave. Phone 3-7884

### GENEVA METAL WHEEL CO., Geneva, Ohio

Wheels (conveyor, general industrial, hand truck, rubber tired, tractor, trailer).

#### Representatives

Calif., Los Angeles 13—Colson Equipment & Supply Co., 1317 Willow St. TR 5743  
Calif., Oakland 7—Colson Equipment & Supply Co., 350 Tenth St. TE 2-3556  
Calif., San Francisco 5—Colson Equipment & Supply Co., 20 Beale St. GA 1-0280

### GERBING MANUFACTURING CORP., 11800 Milwaukee Ave., Northbrook, Ill.

Belt (variable speed), Pulleys (variable speed).

#### Branch

Calif., Maywood—4035 E. 52nd St. LO 5-5304

#### Representatives

Ariz., Phoenix—Edward D. Maltby Co., 120 So. Fourth Ave.  
Ariz., Phoenix—Southwest Sales Co., 1620 E. Earll Dr.  
Calif., Fresno—Commercial Mfg. & Supply Co., 2432 Railroad Ave.  
Calif., Long Beach—Edward D. Maltby Co., 2041 Anaheim St. HE 7-1808  
Calif., Los Angeles—Garrett Supply Co., 3844 Santa Fe Ave.  
Calif., Los Angeles—Edward D. Maltby Co., 1718 So. Flower St. RI 7-9191  
Calif., Maywood—Edward D. Maltby Co., 4035 E. 52nd St. LO 5-5304  
Calif., San Diego—Edward D. Maltby Co., 747 Fifteenth St.  
Calif., San Francisco—Monarch Supply Co., 277 Pennsylvania Ave. UN 3-1740  
Calif., Santa Clara—Monarch Supply Co., 2455 The Alameda. AX 6-4801  
Ore., Portland—Western Machinery Corp., 1035 S.E. Ninth Ave.  
Utah, Salt Lake City—Bearing Engineering & Sales, 756 So. Second W. EM 4-1877  
Wash., Yakima—Dodge-Yakima Supply Co., 169 So. Front St. Phone 3-8266

### GERLINGER CARRIER CO., Lyle and Birch Sts., Dallas, Ore. MA 3-2391

Trucks (hydraulic lift, power-driven lift, straddle).

#### Representatives

Ariz., Phoenix—E. D. Flournoy Co., 420 S. Third St. AL 2-0825  
Calif., Oakland—Burnaby & Williams, 600 16th St. TE 2-8498  
Calif., Van Nuys—Burnaby & Williams, 6102 Sepulveda Blvd. ST 5-6561  
Colo., Denver—Murray Sales Co., 16 Wazee Market. KE 4-5296  
N. Mex., Albuquerque—E. D. Flournoy Co., 217 Sixth St. S. W. Phone 3-1055  
Ore., Portland—Air-Mac, Inc., 1435 S.E. Union. FI 6524  
Utah, Ogden—The Horsley Co., 2416 Grant Ave. Phone 2-1847  
Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave. S. MU 3388  
Wash., Spokane—Air Mac, Inc., E. 3710 Trent Ave. KE 0561

### GERRARD STEEL STRAPPING DIV., U. S. STEEL CORP., 2915 W. 47th St., Chicago 32, Ill.

Strapping and Strapping Equipment.

#### Branches

Calif., Los Angeles—6061 E. Slauson Ave. RA 3-8577  
Calif., South San Francisco—3603 Shaw Rd. JU 4-5885  
Ore., Portland—1516 N.W. Thurman St. BE 2697  
Wash., Seattle—1056 Sixth Ave. So. MA 8335

### GLEASON CORP., 250 No. 12th St., Milwaukee 3, Wis.

Wheels (semi-pneumatic, steel disc), Casters.

#### Representatives

Calif., San Francisco 22—Phil Payton, 1790 34th St. MO 4-5066  
Calif., Santa Fe Springs—James Boal, 11725 Clarkman Ave. TO 3-0960  
Hawaii, Honolulu—Alexander Assoc., 1272-A So. King St.  
Utah, Salt Lake City—J. H. Nicodemus, 230 So. 4th St. W. EM 3-5587  
Wash., Seattle 1—Wm. A. Matske, Terminal Sales Bldg. SE 4257

### GLOBE HOIST CO., E. Mermaid Lane at Queen St., Philadelphia 18, Pa.

Elevators, Hoists (hydraulic, portable), Jacks (hydraulic), Loaders, Platforms, Ramps.

See advertisement on page 18

#### Branch Office

Calif., Long Beach—1461 Canal Ave. HE 2-5431

#### Representatives (Industrial)

Ariz., Phoenix—E. D. Flournoy Co., 410 So. Second St.  
Ariz., Phoenix—Lee Vaughn, 3111 No. 34th St.  
Ariz., Phoenix—L. J. Clarke & Co., 18 E. Lincoln St.  
Ariz., Tucson—L. J. Clarke & Co., 2625 No. First St.  
Calif., Los Angeles—Modern Materials Handling Equipment Co., 1738 Griffin Ave.  
Calif., Los Angeles—Stanley E. Morris Co., 5584 Alhambra Ave.  
Calif., San Diego—Elevator Electric Co., 1541 India St.  
Calif., San Diego—Kenton Equipment Co., 629 First St.  
Calif., San Diego—Winn Supply Co., 256 Seventh Ave.  
Calif., San Francisco—Independent Elevator Co., 2801 23rd St.  
Calif., San Francisco—Samson Sales Co., 420 Market St.  
Calif., San Francisco—R. E. Sanderson, 221 11th St.  
Calif., San Jose—Eastman Equipment Co., 871 Park Ave.  
Colo., Denver—Hahn Equipment Co., 1795 Sheridan St. (also Wyo.)  
Colo., Denver—Plant Equipment Co., 1400 Market St.  
N. Mex., Albuquerque—E. D. Flournoy Co., 217 Sixth St. S.W.  
Utah, Salt Lake City—Robert Taylor & Sons, 1977 So. Main St.  
Wash., Seattle—Cascade Handling Equipment Co., 410 Battery St.  
Wash., Seattle—Tallman Machinery Co., Inc., 906 Elliott Ave., W.

#### Representatives (Elevator Only)

Calif., Los Angeles—Oliver & Williams, 1286 E. Sixth St.  
Calif., San Francisco—Home Elevator Co., 1450 15th St.  
Calif., San Francisco—San Francisco Elevator Co., Inc., 860 Folsom St.  
Colo., Denver—O'Keefe Elevator Co., 1909 Blake St.  
Utah, Salt Lake City—Kimball Elevator Co., 139 Motor Ave.  
Wash., Seattle—Elevator Service & Sales, 562 Broad St.

### GOODALL RUBBER CO., Whitehead Road, Trenton 4, N. J.

Belt (conveyor, fabric, canvas, elevator, endless).

#### Branches

Calif., Los Angeles—2939 E. 11th. AN 3-6723  
Calif., South San Francisco—221 E. Grand Ave. PL 6-5466  
Colo., Denver—1033 Santa Fe Dr. KE 4-8285  
Ore., Portland—1111 N.W. 16th Ave. CA 7-1259  
Utah, Salt Lake City—631 So. Second West. EL 5-7437  
Wash., Seattle—2751 Fourth Ave. So. MA 8527  
Wash., Spokane—814 Paulsen Bldg. MA 8131

### GOODRICH, B. F., INDUSTRIAL PRODUCTS CO., 500 So. Main St., Akron, Ohio

Belt (conveyor, elevator, endless), Conveyors, (belt), Elevators (belt), Packing material.

#### Branches

Calif., Los Angeles—3525 So. Garfield Ave., LU 1-6151  
Calif., San Francisco—1950 Army St. AT 2-9620  
Colo., Denver—2500 W. Eighth Ave. TA 5-1267  
Wash., Seattle—1 Hanford St. MU 4300

#### Representatives

Ariz., Phoenix—Thunderbird Sales Corp., 2255 W. McDowell Rd. AL 4-8876  
Calif., Los Angeles—Howard Supply Co., 5125 So. Santa Fe. KI 1281  
Calif., Sacramento—Sacramento Rubber Co., 721 J St. GI 2-3847  
Calif., San Francisco—Hercules Equipment & Rubber, 435 Brannan St. YU 6-2770  
Calif., Stockton—Delta Rubber & Equipment Co., 630 No. Union St. 7-7813  
Colo., Denver—A. J. Philpott Co., 1816 California. AL 5-0550  
Ore., Portland—Empire Rubber & Supply Co., 1720 N. W. Marshall St.  
Ore., Portland—General Rubber & Supply, 101 S.W. First Ave. AT 6565  
Wash., Seattle—Nebur Supply Co., 3000 Western. MA 6292

### GOODYEAR INDUSTRIAL PRODUCTS CO., INC., 18 Murray St., New York 7, N. Y.

Neoprene, Hycar and rubber to government specifications, Aprons, Boots, Bumpers, Clothing, Die cut parts, Extrusions, Gaskets, Gloves, Grommets, Hard rubber buckets, Dippers and funnels, Hoses, Mollies, Mats and matting, Molded parts, Packings, Sponge rubber, Strippings, Stoppers, Tubing.

#### Representatives

(Address any inquiries to home office. Sales handled through field representatives.)

### GOTTSCHO, ADOLPH, INC., No. 6 Evans Terminal, Hillside 5, N. J.

Marking Equipment.

#### Representatives

Calif., Los Angeles—King Sales & Engineering Co., 1749 E. Florence Ave.  
Calif., San Francisco—King Sales & Engineering Co., 441 Folsom St. EX 2-7664

### GOULD-NATIONAL BATTERIES, INC., First National Bank Bldg., St. Paul, Minn.

Batteries.

#### Branches

Calif., La Puente—14500 Nelson Ave. ED 6-4571  
Calif., Oakland—1000 42nd St. OL 3-9292  
Colo., Denver—2315 15th St. GE 3-2595  
Ore., Portland—1973 N.W. Lovejoy St. CA 7-7461  
Utah, Ogden—160 W. 28th St. Phone 3-5311

### GOULDS PUMPS, INC., 240 Fall St., Seneca Falls, N. Y.

Pumps (liquid handling).

#### Representatives

Ariz., Phoenix—Gilbert Pump & Equipment Co., 1025 So. Central Ave. Phone 4-7139  
Calif., Los Angeles—Pump Engineering Co., 2011 So. Santa Fe Ave.  
Calif., San Francisco—Woodin & Little, 33 Fremont St.  
Colo., Denver—Warner Co., 3625 E. 48th Ave.  
Mont., Billings—Midland Implement Co., 2303 Montana Ave. Phone 3155  
Ore., Portland—R. M. Wade & Co., 1919 N.W. Thurman St.  
Utah, Salt Lake City—Robert Taylor & Sons, P. O. Box 1223  
Wash., Spokane—General Machinery Co., 3500 Riverside. KE 1555

### GRANBERG CORP., 1308 67th St., Oakland 8, Calif.

Pumps (liquid handling).

#### Branch Office

Calif., South Gate—8997 State. Lo 7-4880  
Ore., Portland—Henry Kals Co., 4023 No. Interstate. AT 7-9700  
Wash., Seattle—Nebur Supply Co., Inc., 3000 Western Ave. MA 6292

### GRAND SPECIALTIES CO., 3101 W. Grand Ave., Chicago 22, Ill.

Lift trucks (hand, battery and electric), Lift stacks (hand), Elevator (portable and stationary), Dumpers, Cranes (portable).

#### Representatives

Calif., Los Angeles—Golden Bear Equip. Co., 2505 So. Garfield Ave. PA 1-7254 and RA 3-4638  
Calif., Los Angeles—M. F. Huseby Co., 2501 Yates Ave. RA 3-4529  
Calif., Los Angeles—Marshall Tool & Supply, 2850 E. Olympic Blvd. AN 3-6121  
Calif., Los Angeles—Yeager & Sons, 1512 E. Olympic Blvd. TR 3576  
Calif., San Francisco—R. D. Adams Co., 9th and Division Sts. UN 1-0700  
Calif., San Francisco—M. F. Huseby Co., 2144 Market St. KL 8-2958



## GRATON & KNIGHT CO., INC., 356 Franklin St., Worcester 4, Mass.

Belting (leather), Belt Fasteners and Belt Lacing.

Branch Office

Calif., San Francisco—Jim A. Hawkesworth, 1219 Folsom St.

### Representatives

Calif., Arcata—Munnell & Sherrill  
Calif., Bakersfield—Hopper Machine Works  
Calif., El Centro—Imperial Hardware Co.  
Calif., Fresno—Pacific Mill & Mine Supply Co., Inc., 530 Van Ness  
Calif., Los Angeles—Ducommun Metals & Supply Co., 4890 So. Alameda  
Calif., Los Angeles—Pacific Mill & Mine Supply Co., Inc., 2338 E. Eighth St.  
Calif., Redding—Gerlinger Steel & Supply Co.  
Calif., Riverside—Belt & Equipment Supply Co.  
Calif., Sacramento—Sacramento Rubber Co., 721 "J" St.  
Calif., Sacramento—Van Voorhies-Phinney Co., 322 "J" St.  
Calif., San Francisco—Baker & Hamilton Co., 700 Seventh  
Calif., San Francisco—The Darcoid Co. of Calif., 234 Ninth St.  
Calif., San Francisco—Degen Belting Co., 260 Mission  
Calif., San Francisco—Honolulu Iron Works, Matson Bldg.  
Idaho, Boise—Idaho Industrial Supply Co., 114 So. 23rd  
Ore., Portland—Harris Supply Co., 524 N.W. 14th Ave.  
Utah, Salt Lake City—Salt Lake Hardware Co., 105 No. Third W.  
Wash., Aberdeen—Mill & Logging Supply Co.  
Wash., Seattle—Chas. H. Harden Co., 2221 Fourth St.  
Wash., Spokane—Washington Machinery & Supply Co., 29 Cataldo  
Wash., Tacoma—Ducharme Belting & Rubber Co., 501 E. 34th St.  
Wash., Yakima—Yakima Hardware Co.

## J. W. GREER CO., Wilmington, Mass.

Belting (wire), Loaders (pallet).

### Branch

Calif., San Mateo—3827 Fernwood St. FI 5-3996  
Representatives  
Calif., Los Angeles—McKinley Equipment Corp., 1557 Esperanza St. AN 9-0567  
Calif., Oakland—Lifton, Inc., 6601 San Leandro St. SW 8-9100  
Colo., Denver—Murray Sales Co., 16 Wazee Market. KE 4-5297  
Ore., Portland—Charles H. Day Co., 225 S.W. First Ave. CA 9189  
Utah, Salt Lake City—Foulger Equipment Co., 1361 So. Second W. St. Phone 7-5459  
Wash., Seattle—Preston Fuller, 1921 Minor Ave. MA 4256

## GRIFFITH EQUIPMENT CO., 4503 Alger, Los Angeles 39, Calif.

Conveyors (apron, automatic skate, special and other), Elevators (barrel, package, etc.)

## GRIPHOIST, INC., 424 Bryant St., San Francisco 7, Calif.

Hoists (hand, portable), Slings (rope), Winches.

### Representatives

Ariz., Phoenix—Arizona Welding Equipment Co., 415 So. Seventh St. Phone 4-1781  
Ariz., Tucson—Aweco Supply Co., 800 So. Park Ave. Phone 4-1781  
Calif., Berkeley—J. R. Feeney, 600 Addison. AS 3-3246  
Calif., El Monte—Warnock-Bancroft Equipment Co., 9635 Rush St. FO 0-4569  
Calif., Eureka—Kramer Auto Supply, Fourth and C Sts.  
Calif., Los Angeles—John A. Batchelor, 1207 E. 73rd St. KI 0579  
Calif., Los Angeles—Dickson Safety Products, 2952 Crenshaw Blvd.  
Calif., Los Angeles—Fornaciari Co., 5350 E. Washington Blvd. AN 9-7535  
Calif., Los Angeles—Cable Distributors Inc., 4903 E. Washington Blvd. AN 9-3179  
Calif., San Francisco—H. M. Armstrong Co., 702 Polk St. GR 4-1245  
Calif., San Francisco—C. H. Bull Co., 115 Tenth St. UN 1-2466  
Calif., San Francisco—Welch B. Elliott Co., 3415 Pierce St. WA 1-3283  
Calif., San Francisco—A. T. Glesener Co., Inc., 975 Bryant. HE 1-6900  
Calif., San Francisco—Weeks-Howe-Emerson, 750 Harrison. SU 1-3662  
Calif., San Gabriel—Abernathy & Co., 361 No. Arroyo Dr. AT 4-4858  
Calif., Stockton—Stockton Iron Works, Harrison and Lindsay. Phone 7-7691

Colo., Denver—Johnson-Tudor Co., 6198 Colorado Blvd. PE 3-4747

Idaho, Boise—Intermountain Equipment Co., Broadway and Myrtle. Phone 3-6441

Idaho, Wallace—Coeur d'Alene Hardware & Foundry Co., 612-622 Bank St.

Ore., Portland—Masonry Products Co., 206 N.E. 122nd Ave. AL 4-1972

Ore., Salem—Salem Steel & Supply, 180 Court St. Phone 2-3678

Utah, Salt Lake City—Cate Equipment Co., 49 E. Ninth St.

Utah, Salt Lake City—Holland Equipment Co., 2295 So. Second W. Phone 8-5856

Wash., Seattle—Clyde Equipment Co., 3410 First Ave. So.

Wash., Seattle—Industrial Products Co., 2811 First Ave. So.

Wash., Seattle—Rice Sales Co., 256 So. 160th

Wash., Tacoma—Webster-Robinson Machinery & Supply, Puyallup Ave. and "A" St.

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Wash., Tacoma—Webster-Robinson Machinery & Supply, Puyallup Ave. and "A" St.

Wash., Seattle—Charles Industrial Sales, 5201 First Ave. LA 6010

## HARNISCHFEGER CORP., 4400 W. National Ave., Milwaukee 46, Wis.

Cranes (charging and drawing, gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, "I" beam overhead, monorail overhead, yard, truck tractor), Hoists (bucket, chain, electric, hand, monorail, portable, traveling), Scales (crane).

### Branches

Ariz., Phoenix—39 W. Adams St., AL 4-1834

Calif., Los Angeles—2400 E. Imperial Hwy. LO 9-7141

Calif., San Francisco—100 Bush St., DO 2-2313

Colo., Denver—1103 15th St. AL 5-5619

Wash., Seattle—2909 First Ave. So., MA 7720

Yard Handling and Excavation Equipment

### Representatives

Calif., El Centro—Purdy and Holmquist Co., 1275 Main St.

Calif., Eureka—Riley Logging Supply Co., 1034 Broadway

Calif., Escondido—Southern Equipment & Supply Co., 301 W. Grand Ave.

Calif., Fresno—Allied Equipment, 1824 Santa Clara St.

Calif., Los Angeles—Shaw Sales & Service Co., 5100 Triggs St.

Calif., Marysville—Valley Truck & Tractor Co., 100 B St.

Calif., Oakland—Ferguson & Blakemore Machinery Co., 9025 G St.

Calif., Sacramento—Sacramento Valley Tractor Co., 1901 Broadway

Calif., Salinas—Farmers Mercantile Co., 721 Abbott St.

Calif., San Diego—Southern Equipment & Supply Co., 2025 E. Harbor Dr.

Calif., Santa Maria—Hanson Equipment Co., Main St. at Blosser Rd.

Colo., Denver—Liberty Trucks & Parts Co., 690 Lincoln St.

Idaho, Boise—Starline Equipment Co., P. O. Box 2671

Mont., Billings—Seitz Machinery Co., Inc., 420 No. 24th

Mont., Kalispell—Treasure State Equipment Co., Fifth and Railroad W. N.

Mont., Missoula—Treasure State Equipment Co., P. O. Box 1497

Nev., Reno—Pioneer Equipment Co. of Nevada, Inc., 525 Kietake Lane

N. Mex., Las Cruces—Oliver Equipment Co., Route 1, Box 180A

N. Mex., Albuquerque—Leonard Motor Co., Inc., 1211 No. Fourth St.

N. Mex., Farmington—Farmington Truck & Equipment Co., 503 E. Main St.

Ore., Eugene—Loggers & Contractors Machinery Co., 540 Filmore St.

Ore., Portland—Loggers & Contractors Machinery Co., 240 S.E. Clay St.

Utah, Salt Lake City—Western Machinery Co., 2300 So. Main St.

Wash., Seattle—Conrad Creim Co., 8420 First Ave. So.

Wash., Seattle—Glenn Carrington & Co., 91 Columbia St.

Wash., Spokane—Construction Equipment Co., E. 8823 Trent Ave.

### Hoist Representatives

Ariz., Phoenix—Arizona Equipment Sales, Inc., 2750 Grand Ave.

Calif., Bakersfield—Hopper Machine Works

Calif., Bell—Westmont Engineering Co., 4915 Cecelia St.

Calif., Long Beach—Long Beach Welders Supply Co., 1729 W. Anaheim Blvd.

Calif., Los Angeles—ABSCO Welding Supplies, 2202 So. Garfield Ave.

Calif., Los Angeles—Alden Equipment Co., 1741 W. Slauson Ave.

Calif., Los Angeles—Amercon Corp., 2306 W. Slauson Ave.

Calif., Los Angeles—American Monorail Co., 4645 Anaheim-Telegraph Rd.

Calif., Los Angeles—General Conveyor, Inc., 6435 Corvette St.

Calif., Los Angeles—Modern Crane & Conveyor, Inc., 8660 Atlantic Blvd.

Calif., Los Angeles—Modern Materials Handling Equipment Co., 1788 Griffin Ave.

Calif., Los Angeles—Jarvis B. Webb Co., 9301 Rayo St.

Calif., Lynwood—J. W. Lafferty Co., 11371 So. Atlantic Ave.

Calif., Norwalk—Whiting Corp., 14420 So. Bloomfield Ave.

Calif., Richmond—Schultz Material Handling Corp., P. O. Box 1142

Calif., Sacramento—Capitol Machine Works, 83 No. 17th St.

Calif., San Diego—Southern Equipment & Supply Co., 2025 E. Harbor Dr.

Calif., San Francisco—Acme Equipment Co., 840 Harrison St.

Calif., San Francisco—Walter Dankas & Co., 1485 Bayshore Blvd.

## HAMILTON CASTER & MANUFACTURING CO., 1529 Dixie Hwy., Hamilton, Ohio.

Carts (hand and push), Casters, Jacks (lift), Skids (barrel), Tires (industrial truck and trailer), Trucks (appliance, bag, barrel, drum, box type, dolly, factory and warehouse, hand, hand lift, packing house, paper roll, sheet handling), Wheels (general industrial, hand truck, rubber tired, trailer).

### Representatives

Ariz., Phoenix—Kistler Industrial Service, 902 So. Central Ave.

Calif., Los Angeles—District Steel, Inc., 5249 Sheila St.

Calif., Modesto—Geiger Iron Works, Inc., 124 Willow

Calif., Sacramento—Geiger Iron Works, Inc., 2425 24th St.

Calif., Stockton—Geiger Iron Works, Inc., Scotts Ave. and Pilgrim St.

Colo., Denver—Hahn Equipment Co., 1795 Sheridan Blvd.

Ore., Klamath Falls—Moty & Van Dyke, Inc.

Utah, Salt Lake City—Equipment Supply Co., 16 P. O. Pl.

Wash., Seattle—Campbell Industrial Supply Co., 3433 Airport Way

Wash., Seattle—Charles Industrial Sales Co., 5201 First St. So.

Wash., Seattle—J. W. Ralston Co., 1401 W. Garfield

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## HARTMAN — HOUGHTON

Calif., San Francisco—General Conveyor, Inc., 870 Market St.  
 Calif., San Francisco—Ira G. Perin Co., 575 Howard St.  
 Calif., San Francisco—Stryco Manufacturing Co., 470 Natoma St.  
 Calif., San Francisco—Robert M. Taylor Co., 268 Market St.  
 Colo., Denver—General Welding Supply Co., 1416 Blake St.  
 Idaho, Pocatello—Western Machinery Co., 1132 No. Seventh Ave.  
 Ore., Eugene—Air Mac, Inc., P. O. Box 652  
 Ore., Eugene—American Steel & Supply Co., 44-51 E. Seventh Ave.  
 Ore., Medford—American Steel & Supply Co.  
 Ore., Milton-Freewater—Key Equipment Co.  
 Ore., Portland—Air Mac, Inc., of Oregon, 1435 S. E. Union Ave.  
 Ore., Portland—Allied Northwest Machine Tool Corp., 1222 S.E. Seventh Ave.  
 Ore., Portland—Portland Machinery Co., 208 S.E. First Ave.  
 Ore., Roseburg—Industrial Electric Service Co., 118 So. Stephens.  
 Utah, Salt Lake City—Western Machinery Co., 2300 So. Main St.  
 Wash., Aberdeen—Industrial Electric Service Co., 319 So. I St.  
 Wash., Seattle—Air-Mac, Inc., 8833 Fourth Ave. So.  
 Wash., Seattle—Bernth & Co., 3493 Klickitat Wash., Seattle—Cascadia Machinery Co., 4600 E. Marginal Way.  
 Wash., Seattle—Cleveland Tramrail, 5764 28th N.E.  
 Wash., Seattle—F. T. Crowe & Co., 325 Second W.  
 Wash., Seattle—Fryer-Knowles, 1718 Broadway Wash., Seattle—Richard Wilcox Mfg. Co., 2922 Blakely Ave.  
 Wash., Spokane—Air Mac, Inc., of Washington, E. 3710 Trent Ave.  
 Wash., Spokane—Mansur Materials Co., No. 809 Helena St.  
 Wash., Tacoma—Air Mac, Inc., of Washington, 1003 Washington Bldg.  
 Wash., Yakima—Air Mac, Inc., of Washington, 313 No. Grandview

### HARTMAN METAL FABRICATORS, INC., 133 Murray St., Rochester 6, N. Y.

Baskets (steel), Bins, Boxes (tote), Carts (hand and push), Conveyors (pallet), Dock boards, Pallets (steel), Platforms (loading), Racks (pallet, storage, other), Ramps (loading, etc.), Skids, Trailers (factory and warehouse), Trucks (factory and warehouse).

Calif., Lynwood—J. W. Lafferty Co., 11371 So. Atlantic Ave. NE 6-1828

### HEIN-WERNER CORP., 1200 National Ave., Waukesha, Wis.

Jacks. Representatives  
 Calif., North Hollywood—Leonard Lookabaugh, 5215 Corteen Pl.  
 Calif., Oakland—G. A. Shoemaker, 2511 Broadway  
 Colo., Denver—H. C. Babcock Co., 1122 Twelfth St.  
 Ore., Portland—Dirks & Co., 416 N. W. 14th Ave.

### HENSEL GREEN & CO., 9 So. Clinton St., Chicago, Ill.

Tractors (diesel, gasoline warehouse, mobile welder), Trucks (electric industrial).

Representatives  
 Ariz., Phoenix—James P. Kinney Co., 1101 Grand Ave.  
 Calif., Los Angeles—James P. Kinney Co., 5141 Telegraph Rd. AN 9-7411  
 Calif., San Francisco—Ira G. Perin Co., 575 Howard St. GA 1-1827  
 Colo., Denver—H. W. Moore Equipment Co., Colorado Blvd. and 60th Ave.  
 Colo., Grand Junction—H. W. Moore Equipment Co., P. O. Box 1797

### HEPPENSTALL CO., Fifth Ave. and 16th St., New Brighton, Pa.

Grabs. Representatives  
 Calif., Burlingame—W. P. Wooldridge Co., 1209 Burlingame Ave.  
 Calif., Los Angeles—W. P. Wooldridge Co., 6440 Fleet St.

### KARL A. HERMAN CO., 412 Fuller Ave. N.E., Grand Rapids 3, Mich.

Boxes (steel tote), Dockboards (steel counter-weighted), Ramps (steel loading).

Representatives  
 Calif., Oakland—Roll-Rite Corp., 8th and Jefferson, GL 1-5921  
 Calif., San Francisco—Acme Equipment Co., 840 Harrison St. EX 2-1560

Colo., Denver—Plant Equipment Co., 1400 Market St. AL 5-5411  
 Wash., Seattle—G. E. Burleigh Co., 5245 Pullman Ave. FI 5245  
 Wash., Seattle—Mechanical Handling Co., 1401 W. Garfield St. GA 0200

### HERTNER ELECTRIC CO., THE, 12690 Elmwood Ave., Cleveland 11, Ohio

Battery chargers (Motor generator type), Generators (DC—for magnet service).

Representatives  
 Calif., Los Angeles—John Hyatt Co., 1709 W. Eighth St. DU 3-7428  
 Calif., San Francisco—John B. McDonough, 112 Market St. DO 2-7080  
 Wash., Seattle—Stephen Thurlow, 2405 11th Ave. S.W. EL 5272

### HEWITT-ROBINS, INC., 666 Glenbrook Road, Stamford, Conn.

Baskets (wire), Belting (composition, conveyor, elevator, endless, wire, other), Conveyors (belt, bucket, foundry, vibrating), Elevators (belt, bucket), Hoists (drum, skip), Hoses, Pulley (conveyor), Slings (belt), Winches.

Branches  
 Ariz., Phoenix—207-B Camelback Rd. CR 4-0245  
 Calif., Los Angeles—2604 So. Malt Ave. RA 3-4771  
 Calif., San Francisco—1204 Russ Bldg. EX 2-4060  
 Colo., Denver—1324 19th St. AL 5-8765  
 Colo., Denver—660 Bannock St. AC 2-8484  
 Idaho, Boise—2400 Warm Springs Ave. Phone 3-5464  
 Ore., Portland—2034 N.E. Sandy Blvd. BE 5-1996  
 Utah, Salt Lake City—545 W. Eighth So. St. Phone 9-8731  
 Wash., Seattle—641 Dexter Horton Bldg. MA 8640

### "HH" MFG., 2224 Cerritos Ave., Long Beach 6, Calif.

Yard Cranes, Hoists (crane, gasoline, hydraulic, portable), Loaders (portable, self-propelled, scoops), Gasoline warehouse tractors, Trailers (factory and warehouse), Trucks (bag, barrel, drum, gasoline fork, hand, gasoline lift, baggage, other).

Representatives  
 Ore., Portland—Air-Mac, Inc., 1435 S.E. Union Ave. FI 6524  
 Wash., Seattle—Air-Mac, Inc., 8833 Fourth Ave. So. MU 3388

### HOLLAENDER MFG. CO., 3841 Spring Grove Ave., Cincinnati 23

Rocks (hittings for building).

Representatives  
 Calif., Los Angeles—McKinley Equipment Corp., 1557 Esperanza St.  
 Calif., Los Angeles—Pacific Metals Co., Ltd., 1400 So. Alameda St.  
 Calif., San Francisco—Pacific Metals Co., Ltd., 3100 19th St. EN 1-0806  
 Colo., Denver—Metal Goods Corp., 2425 Walnut St. AC 5891  
 Ore., Portland—Pacific Metals Co., 308 N.W. Park Ave. BR 9693  
 Utah, Salt Lake City—Pacific Metals Co., 261 W. Fifth South St.  
 Wash., Seattle—Pacific Metals Co., 4150 First Ave. So.  
 Wash., Spokane—Pacific Metals Co., No. Lee and E. Sprague

### HOLLYWOOD PLASTIC ARTS, INC., 515 East 9th St., Los Angeles 15

Boxes (tote), Trays (tote), Packaging and packaging displays.

### HOLZ RUBBER CO., INC., 1129 So. Sacramento St., Lodi, Calif.

Conveyor Belting Attachments, Vulco-Lagged Pulleys, Cleated Belts, Rubber Rollers, Pivot-Filts Cleats and Load Grips, Solid Tires, Chute Lining, Molded Rubber Specialties.

See advertisement on page 114

Representatives  
 Calif., Los Angeles—Degen-Fiege Co., 4559 E. Shelia. AN 9-0781  
 Calif., Los Angeles—Western Belting & Mechanicals Inc. 3525 Emery. AN 1-7117  
 Idaho, Pocatello—Paul Roberts Supply  
 Ore., Portland—General Rubber & Supply, 101 S.W. First Ave. AT 6565  
 Wash., Spokane—Modern Machinery Co., Inc., E. 4412 Trent Ave.  
 Wyo., Cheyenne—Keremi Tractor & Equipment Co., P. O. Box 908

### HOUGH, FRANK G., CO., THE, 889 Sunnyside Ave., Libertyville, Ill.

Tractors and Tractor-Shovels.

See advertisement on page 41

Branch Offices  
 Calif., Hillsborough—San Mateo—Donald O. Ross, 1485 Lake View Dr. DI 4-6143  
 Calif., Inglewood—Merle M. Fate, 10509 Third Ave. FL 3690  
 Colo., Aurora 8—David B. Hunsaker, 900 Kenton St. EM 6-1993  
 Ore., Portland—Frank M. Learn, Franklin Manor, Apt. 22, 2515 S.E. 51st St. BE 2-5415

Representatives  
 Ariz., Phoenix—State Tractor & Equipment Co., P. O. Box 6126  
 Ariz., Tucson—F. Ronstadt Hardware Co., P. O. Box 5138  
 Calif., Bakersfield—Brown-Bevis, Industrial Equipment Co., P. O. Box 811  
 Calif., Eureka—Howard-Cooper Corp. of Calif., Highway 101, No.  
 Calif., Five Points—Allied Equipment Co., Lassen Ave.  
 Calif., Fresno—Allied Equipment Co., P. O. Box 726  
 Calif., Los Angeles—Brown-Bevis—Industrial Equipment Co., P. O. Box 2276  
 Calif., Madera—Allied Equipment Co.  
 Calif., Oakland—Bay Cities Equipment Co., 2792 Cypress St.  
 Calif., Redding—Howard-Cooper Corp. of Calif., P. O. Box 673  
 Calif., Reedley—Allied Equipment Co.  
 Calif., Riverside—Braman-Dickerson Co., Inc., P. O. Box 471  
 Calif., Sacramento—Sacramento Valley Tractor Co., P. O. Box 1522  
 Calif., San Diego—Southern Equipment & Supply Co., P. O. Box 550  
 Calif., San Jose—Bay Cities Equipment Co., Inc., 1178 W. San Carlos  
 Calif., Santa Maria—Hanson Equipment Co., P. O. Box 870  
 Calif., Stockton—Delta Tractor Co., P. O. Box 839  
 Calif., Stratford—Orton Equipment Co., Main St.  
 Colo., Denver—H. W. Moore Equipment Co., P. O. Box 2491  
 Colo., Durango—H. W. Moore Equipment Co., Highways 160 and 550  
 Colo., Grand Junction—H. W. Moore Equipment Co., 2335 Grand Ave.  
 Idaho, Boise—Intermountain Equipment Co., P. O. Box 1129  
 Idaho, Pocatello—Intermountain Equipment Co., 210 N. Fourth Ave.  
 Mont., Billings—Industrial Equipment Co., 415 No. 27th St.  
 Mont., Black Eagle—Power Equipment Co., P. O. Box 367  
 Mont., Kalispell—Treasure State Equipment Co., P. O. Box 354  
 Mont., Missoula—Treasure State Equipment Co., 400 Knowles Ave.  
 N. Mex., Albuquerque—J. D. Coggins Co., P. O. Box 467  
 N. Mex., Farmington—J. D. Coggins Co., P. O. Box 1356  
 Nev., Las Vegas—Clark Co. Wholesale Merchandise Co., 512 So. Main St.  
 Nev., Reno—Tractor Equipment Co., P. O. Box 628  
 Ore., Albany—Howard-Cooper Corp., P. O. Box 433  
 Ore., Central Point—Howard-Cooper Corp., P. O. Box 667  
 Ore., Coquille—Howard-Cooper Corp., P. O. Box 1  
 Ore., Eugene—Howard-Cooper Corp., 107 Van Buren St.  
 Ore., Hermiston—Pendleton Grain Growers, Inc.  
 Ore., Pendleton—Pendleton Grain Growers Inc., P. O. Box 279  
 Ore., Portland—Howard-Cooper Corp., P. O. Box 3704  
 Ore., Roseburg—Howard-Cooper Corp., 1673 N.E. Second Ave. So.  
 Utah, Salt Lake City—Lang Construction Equipment Co., 267 W. First So.  
 Wash., Seattle—The Carrington Co., 91 Columbia St.  
 Wash., Seattle—Howard-Cooper Corp., 5045 Fourth Ave., So.

### HOUGHTON, E. F., & CO., 303 W. Lehigh Ave., Philadelphia, Pa.

Belting (leather), Belt fasteners & belt facings.

Branches  
 Calif., Los Angeles—109 No. Ave. 18. CA 1-6174  
 Calif., San Francisco—1600 Davidson Ave. VA 4-8207



## HOWARD - JACKSON

Ore., Portland—209 S.W. Stark St. CA 8-9211  
Wash., Seattle—4100 E. Marginal Way. MA 7-951

**HOWARD, C. E., CORP.**, 9001 Rayo Ave., South Gate, Calif. LO 4-1811  
Stainless steel truck and semi trailers for hauling liquids.

**Branch**  
Calif., Oakland—449 Rich St. OL 8-5423  
**Representative**  
Calif., Los Angeles—Fruehauf Trailer Co., 5137 So. Boyle Ave. LU 7-1181

**HOWE SCALE CO.**, Rutland, Vt.  
Scales (automatic, conveyor, counting, monorail, packaging, portable, warehouse, other), Trucks (bag, barrel, drum, box type, dolly, factory and warehouse, hand, packing house, paper roll, sheet handling, skid handling).

**Branches**  
Calif., Los Angeles—2616 Malt Ave. RA 3-4576  
Calif., San Francisco—780 Tennessee St. VA 4-4400  
Colo., Denver—2524 Walnut St. AL 5-4364  
Wash., Seattle—3222 Western Ave. GA 8660

**HUGHES-KEENAN CORP.**, South St., Delaware, Ohio  
Cranes (yard, truck, tractor).

**Representatives**  
Calif., Los Angeles—Casey-Metcalf Machinery Co., 5515 E. Slauson Ave.  
Calif., Los Angeles—James P. Kinney Co., 5141 Telegraph Rd.  
Calif., San Francisco—Caesar Baldassari, 647 Howard St.  
Mont., Billings—Industrial Equipment Co.  
Utah, Salt Lake City—Foulger Equipment Co., 1361 So. Second West St.

**HUNTER WOODWORKS**, 1235 E. 223rd St., Torrance, Calif.  
Boxes for Shipping, Tote Boxes, Pallets, Cut Lumber, Wood Stacking material, Wooden Shipping Crates.

**HURT CONVEYOR CO.**, 1415 Mateo St., Los Angeles 21, Calif. TR 6408  
Belting (chain link, composition, conveyor, fabric, canvas, elevator, endless, wire, other), Belt fasteners, Belt lacing, Conveyors (apron, automatic, bag and bale, belt, bucket, chain or link, continuous flow, drag, flight, foundry, gravity roller, live roller, overhead, pallet, portable, screw, skate, slot, trolley, other), Elevators (barrel, package, belt, bucket, continuous flow), Conveyor pulleys, Conveyor rollers, Tables (conveying, elevating, portable, other), Wheels (conveyor).

See advertisement on page 180

**Branch Office**  
Calif., Los Angeles—1415 Mateo. TR 6408

**HYDROWAY SCALES, INC.**, 20624 W. Eight Mile, Detroit, Mich.  
Scales (portable, crane).

**Representatives**  
Calif., Glendale—Carl J. Kennedy Co., 918 No. Kenilworth. CH 5-3145  
Calif., San Francisco—Edwin L. Fry, 420 Market St. DO 2-8515  
Wash., Seattle—Materials Handling Equipment Corp., 2963 First St. So. SE 0997  
Wash., Seattle—Mechanical Handling Co., 1401 W. Garfield. GA 0200

**HYSTER CO.**, 2902-90 N. E. Clackamas St., Portland 8, Ore.

Cranes (yard, truck, tractor), Grabs, Trucks (bag, barrel, drum, box type, die handling, elevating or lifting, factory and warehouse, diesel fork, gasoline fork, gasoline lift, packing house, pallet, paper roll, sheet handling, skid handling and straddle), Winches and Windlasses.

See advertisement on page 79

**Branches**  
Calif., Eureka—1303 Albee St. HI 2-4610  
Calif., Los Angeles—2425 So. Garfield Ave. RA 3-6255  
Calif., San Diego—1169 16th St.  
Calif., San Francisco—4445 Third St. MI 8-0680  
Ore., Portland—2105 S.E. Seventh Ave. BE 4-6471  
Wash., Seattle—753 Ninth Ave. No. EL 2401  
Wash., Spokane—1107 Freya St. KE 8038

**Representatives**  
Ariz., Phoenix—Equipment Sales Co., 720 So. 19th Ave. AL 8-7151  
Colo., Denver—King & East Machinery Co., 2390 So. Delaware St., SH 4-1747

Ida., Idaho Falls—Arnold Machinery Co., Inc., 1302 W. Broadway. Phone 3672  
N. Mex., Albuquerque—Equipment Sales Co., 4121 Edith, N.E. Phone 4-1124  
Utah, Salt Lake—Arnold Machinery, 433 W. Second St. Phone 4-6401  
Wash., Seattle (Alaska)—Northern Commercial Co., 427 Colman Bldg. MU 2300  
Hawaii, Honolulu—Electric Steel Foundry, 630 So. Queen St. Phone 6-6186

**IDEAL STENCIL MACHINE CO.**, 102 Iowa Ave., Belleville, Ill.

Tape moistening and dispensing machines (electric and hand-operated), Shipping room supplies.

**Representatives**  
Calif., Los Angeles—Cal-State Distributors, 646 W. Florence Ave. PL 2-7141  
Calif., Oakland—E. G. Beuhrer Assoc., Inc., 253 Fourth St. TE 6-2082

**INDUSTRIAL CRANE & HOIST, INGERSOLL PRODUCTS DIV. BORG-WARNER CORPORATION**, 1536 So. Paulina St., Chicago 8, Ill.

Cranes (gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power overhead, traveling locomotive overhead, i-beam overhead, monorail overhead).

**Representative**  
Calif., Richmond—Schultz Material Handling Co., P. O. Box 1142. BE 3-7907

**INDUSTRIAL MARKING EQUIPMENT CO.**, 454 Baltic St., Brooklyn 17, N.Y.  
Bags (multi-wall printers), Shipping boxes (printers and numbers), Conveyors (markers), Marking equipment (automatic).

**Representatives**  
Calif., Oakland—James Q. Leavitt Co., 410 25th St., TW 3-9964  
Calif., San Francisco—King Sales, 441 Folsom St., EX 2-7664  
Colo., Denver—Edwin F. Deline, 224 W. Alameda Ave.  
Ore., Salem—James Q. Leavitt Co., P. O. Box 67. Phone 2-0970  
Utah, Ogden—James Q. Leavitt Co., P. O. Box 364. Phone 3-8551  
Wash., Seattle—James Q. Leavitt Co., 2702 First Ave. So. MA 3654

**INDUSTRIAL SKID & PALLET CO.**, 3401 E. 15th St., Los Angeles 23, Calif. AN 1-0259

Boxes (tote), Pallets, Platforms (skid), Racks (pallet, storage, other), Trucks (dolly, factory and warehouse, skid handling).

**Representatives**  
Calif., Los Angeles—W. T. Billard, Inc., 734 E. Third St. MI 2659  
Calif., Los Angeles—M. E. Canfield Co., 419 E. Third St. MA 6-6606  
Calif., Los Angeles—Colson Equipment Co., 1317 Willow St. TR 5744  
Calif., San Francisco—Ira G. Perin Co., 546 Howard St. GA 1-1827  
Calif., San Francisco—Harneslag Equipment Co., 45 Elmira St. JU 7-1357  
Wash., Seattle—Secord Sales Co., 95 Connecticut St.

**INGERSOLL KALAMAZOO DIV., BORG WARNER CORP.**, 1810 No. Pitcher St., Kalamazoo, Mich.  
Load lugger hoisting unit and detachable container system.

**Representatives**  
Calif., Los Angeles—Ed Sullivan Equipment Engineering Services, 672 So. Lafayette Park Pl.  
Calif., Richmond—Schultz Material Handling, 340 11th St., BE 3-7907  
Colo., Denver—H. M. Rattle Co., 1393 So. Santa Fe Dr. KE 4-5575  
Ore., Portland—Oregon Handling, 2940 St. Helens Rd., N.W. CA 8-4196  
Wash., Seattle—Cascade Handling, 410 Battery St. MA 7447

**INGERSOLL-RAND COMPANY**, 11 Broadway, New York 4, N. Y.  
Hoists (air, drum, electric and portable), Pumps (liquid handling).

**Branch Offices**  
Calif., Los Angeles—1460 E. Fourth St. AN 8-6761  
Calif., San Francisco—350 Brannan St. GA 1-6330  
Colo., Denver—1641 Blake St. KE 4-2245

Mont., Butte—845 So. Montana St. Phone 2-0451

Ore., Portland—Room 1004, Broadway Bldg., Broadway and Morrison St. CA 3-1852  
Tex., El Paso—2100 Wyoming St. Phone 2-3673  
Utah, Salt Lake City—144 S.W. Temple St. DA 8-8127  
Wash., Seattle—526 First Ave., So. MA 2866

**INLAND WIRE PRODUCTS CO.**, 3947 So. Lowe Ave., Chicago 9, Ill.

Strapping (flat, round), Wire tying machines, Stitching machines, Stitching wire.

**Branch**  
Calif., Los Angeles—4293 Bandini Blvd. AN 0149

**Representatives**  
Calif., Los Angeles—Groark Steel Strapping, 4293 Bandini Blvd. AN 0149  
Calif., San Leandro—Groark Steel Strapping, 14388 Washington St. LO 2-4645  
Ore., Portland—Portland Wire & Steel Warehouse, 4706 S.E. 18th Ave. EM 2194

**INSLEY MFG. CORP.**, 801 No. Olney Ave., Indianapolis, Ind.

Cranes (yard, truck, tractor).

**Branch Offices**  
Calif., Sacramento—16th and American River, P. O. Box 2649  
Calif., Santa Ana—12202 Westminster Ave.

**Representatives**  
Ariz., Phoenix—Shriver Machinery Co., 1756 Grand Ave.  
Calif., Los Angeles—Essick Machinery Co., 1950 Santa Fe Ave.  
Calif., San Francisco—Western Traction Co., 2230 Third St.  
Calif., Stockton—Delta Tractor Co., No. Wilson Way and Hwy 99  
Calif., Redding—Sullivan & Crowe Equipment Co., 2637 Angelo Ave., P. O. Box 1018  
Colo., Grand Junction—S & M Supply Co., Inc., 735 Fourth Ave., P. O. Box 247  
Mont., Helena—Caird Engineering Works, P. O. Box 837  
Nev., Reno—R. M. Jenkins Co., Inc., 100 Giroux St.  
N. Mex., Albuquerque—M & F Equipment Co., 824 Arno, N.E.  
Ore., Portland—Wood Tractor Co., 1033 S.E. Main St.  
Utah, Salt Lake City—Lund Machinery Co., 49 No. Second W. St., P. O. Box 1948  
Wash., Seattle—Washington Machinery Co., 7329 E. Marginal Way

**IRONBOUND BOX & LUMBER CO.**, 142 Hoffman Place, Hillside, N. J.  
Jacks (lift), Pallets, Trucks (box type, dolly, factory and warehouse, hydraulic lift, paper roll), Skids (steelbound platform, semi-live).

**Representatives**  
Calif., Los Angeles—McKinley Equipment Co., 1557 Esperanza St.  
Calif., San Francisco—P. F. O'Donnell Co., 527 Brannan St.  
Utah, Salt Lake City—Equipment Supply Co., 16 Post Office Pl.  
Wash., Seattle—J. W. Ralston Co., 1401 W. Garfield

**IRON WORKS, INC.**, 116 King St., Brooklyn 31, N. Y.  
Grabs, Racks (load safety).

**Representatives**  
(Industrial truck dealers and manufacturers in all major Western cities.)

**ISLAND EQUIPMENT CORP.**, 27-01 Bridge Plaza No., Long Island City 1, N. Y.

Conveyors (gravity roller, live roller, pallet, portable, skate), Rollers (conveyor), Tables (conveying, portable), Automatic carton unloader.

**Representatives**  
(Inquiries should be addressed to firm's home office. Firm's field engineers travel to cover Western engineering assignments.)

**JACKSON MFG. CO.**, P. O. Box 9, Harrisburg, Pa.

Carts (hand, push), Wheelbarrows (industrial), Wheels (general industrial, rubber tired).

**Representatives**  
Calif., Los Angeles—Lippincott Co., 1052 W. Sixth St.  
Calif., San Francisco—Lippincott Co., 995 Market St.  
Utah, Salt Lake City—Lippincott Co., 109 W. Second St. So.  
Wash., Seattle—Lippincott Co., 911 Western Ave.



## JAKES — KNICKERBOCKER

### JAKES FOUNDRY CO., 2800 Charlotte Ave., Nashville 9, Tenn.

Carts (hand, push, other), Casters, Tires, Trailers (factory and warehouse), Trucks (bag, barrel, drum, box type, die handling, dolly, factory and warehouse, hand, packing house, paper roll, sheet handling, other), Wheels (general industrial).

#### Representatives

Ariz., Phoenix—Luna Corp., 447 W. Jefferson St.  
Calif., Los Angeles—Colson Equipment & Supply Co., 1317 Willow St. TR 5743  
Calif., Los Angeles—Union Hardware & Metal Co., 5555 Ferguson Dr. RA 3-2411  
Calif., Los Angeles—Utilities Supply Co., 1736 E. 15th St. RI 9-3178  
Calif., Los Angeles—Yaeger & Sons, 1512 E. Olympic Blvd. TU 5880  
Calif., San Francisco—Elder & Co., 300 Seventh St. UN 1-5480  
Calif., San Francisco—W. R. Voorhees & Co., 417 Market St. SU 1-6574  
Colo., Denver—Plant Equipment Co., 1400 Market St. AL 5-5413  
Idaho, Boise—R. H. Brown Co., 114 So. 23rd St. Phone 3-7311  
Ore., Portland—R. H. Brown Co., 604 N.W. Sixth Ave. AT 5235  
Utah, Salt Lake City—Materials Handling Engineers, 334 W. 17th St. ST IN 7-4871  
Wash., Seattle—R. H. Brown Co., 502 First Ave. So. SE 0707

### JARKE MANUFACTURING CO., 5407 No. Broadway, Chicago 40, Ill.

Racks (wire coil, strip coil, bar, sheet), Portable tables (punch press feeding).

#### Representatives

Calif., Emeryville—Joseph T. Ryerson & Son, Inc., 65th and Hollis Sts.  
Calif., Los Angeles—H. N. Bailey Industrial Supply Co., P. O. Box 74835—Oakwood St.  
Calif., Los Angeles—Joseph T. Ryerson & Son, Inc., 4310 Bandini Blvd.  
Wash., Seattle—Joseph T. Ryerson & Son, Inc., 1200 Fourth Ave. So.  
Wash., Spokane—Joseph T. Ryerson & Son, Inc., No. 207 Freya St.

### JARVIS & JARVIS, INC., So. Main St., Palmer, Mass.

Casters, Trucks (dolly, hand), Wheels (rubber tired).

#### Representatives

Calif., Los Angeles—Utilities Supply Co., 1736 E. 15th St. RI 9-3178  
Colo., Denver—Hahn Equipment Co., 1745 Blake St. KE 4-5500  
Ore., Portland—Oregon Handling Equipment Co., 2949 N. W. St. Helena Rd. CA 8-4196  
Wash., Seattle—Cascade Handling Equipment Co., 410 Battery St. MA 7069

### JEFFREY MFG. CO., 951 No. Fourth St., Columbus 16, Ohio

Chains, Conveyors (apron, automatic, bag and bale, belt, bucket, chain or link, continuous flow, drag, flight, foundry, live roller, pallet, screw, slot, vibrating, special and other), Elevators (belt, bucket, continuous flow, portable tiering), Feeders (vibrating, mechanical), Hoists (skip), Pulley, Transmission machinery, Car pullers.

See advertisement on page 27

#### District Office

Calif., Burlingame—1862 Rollins Rd. OX 7-5303

#### Representatives

Ariz., Phoenix—Edward D. Maltby Co., 424 W. Jefferson. AL 4-9227  
Calif., Eureka—Bearing & Transmission Products Co., 2930 Broadway  
Calif., Fresno—General Bearings Co., 2820 Church Ave. AD 7-7104  
Calif., Gardena—Alden Equipment Co., 1449 W. Rosecrans Ave. DA 9-6341  
Calif., Long Beach—Edward D. Maltby Co., 2041 W. Anaheim. NE 6-7254  
Calif., Los Angeles—Alden Equipment Co., P. O. Box 47666, Wagner St.  
Calif., Los Angeles—Edward D. Maltby Co., 1718 So. Flower St. RI 7-9191  
Calif., Maywood—Edward D. Maltby Co., 4035 E. 52nd St. LO 5-5304  
Calif., Oakland—Bearing Engineering Co., 1019 Harrison St. TW 3-2251  
Calif., Sacramento—Sacramento Engineering & Machinery Works, Sixth and "X" St.  
Calif., San Diego—Edward D. Maltby Co., 745 15th St. BE 3-7278  
Calif., San Francisco—General Conveyor, Inc., 870 Market St. EX 7-0737  
Calif., San Francisco—Bearing Engineering Co., 1547 Mission St. HE 1-1500  
Calif., Stockton—The Bearing Supply Co., 300 No. Wilson Way  
Calif., Watsonville—Goodale Manufacturing Co., Inc., 38 Menker St. WA 2-2791

Colo., Denver—E. C. Honne Machinery Co., 1726 Champa St. TA 5-7015  
Nev., Reno—Stutts-Sutton Co., 622 So. Virginia. FA 2-3281  
Ore., Portland—Northwest Chains & Sprockets, Inc., 123 S.W. Pine St. AT 5002  
Utah, Salt Lake City—National Equipment Co., 101 W. Second So. St. Phone 3-8878  
Wash., Seattle—Northwest Chains & Sprockets, Inc., 3628 E. Marginal Way. MA 8629

### JERVIS B. WEBB CO. OF CALIF., see WEBB, JERVIS B., CO. OF CALIF.

### JOHNSON & FLAHERTY MFG. CO. 5801 District Blvd., Los Angeles

Racks (pallet, storage, other).

#### Representatives

Calif., San Francisco—Squires Co., 370 Fourth St. YU 6-4882  
Wash., Seattle—Air-Mac Inc., 3838 Fourth Ave., So.

### JOINT SAW CO., 30 E. Santa Clara, Arcadia, Calif.

Pallets, Trucks (elevating or lifting, hand, hand lift).

#### Branch Office

Calif., Arcadia—30 E. Santa Clara. HI 7-3563

### JOYCE-CRIDLAND CO., 2027 E. First St., Dayton 3, Ohio

Deck boards (hydraulic, adjustable), Jacks (hydraulic, lift, screw, other), Platforms (loading, hydraulic), Lifts (hydraulic, industrial).

#### Representatives

Ariz., Phoenix—Paramount Mfg. Co., 515 So. First St. AL 4-4951  
Calif., Los Angeles—Coast Elevator Co., 4171 Hoover St.  
Calif., Los Angeles—Paramount Mfg. Co., 2336 E. 38th St. KI 2291  
Calif., San Francisco—Paramount Mfg. Co., 905 Mills Bldg. GA 1-1416  
Colo., Denver—Lyle Wolf Co., 1126 12th St. KE 4-8857  
Ore., Portland—Paramount Mfg. Co., 316 N.W. 12th Ave. BE 8542  
Wash., Seattle—Paramount Mfg. Co., 2221 Fourth Ave. EL 3363

### JOY MFG. CO., Henry W. Oliver Bldg., Pittsburgh 22, Pa.

Conveyors (belt, flight, foundry, portable), Hoists (air, electric, gasoline, portable), Idlers (conveyor).

See advertisement on page 101

#### Branches

Calif., Los Angeles—5426 E. Washington Blvd. RA 3-6305  
Calif., San Francisco—1155 Harrison St. HE 1-2446  
Colo., Denver—1626 Wazee St. KE 4-6334  
Utah, Salt Lake City—998 So. Sixth W. St. DA 2-0481  
Tex., El Paso—1022 Wyoming St. Phone 3-2121

### KALAMAZOO MFG. CO., 1827 Reed St., Kalamazoo 24F, Mich.

Tractors (warehouse electric, gasoline warehouse), Trucks (bag, barrel, drum, industrial).

#### Branch Office

Calif., San Francisco—Gordon H. Proffitt, World Trade Center, Ferry Bldg.

#### Representatives

Calif., Los Angeles—James E. Simkins, 1748 W. 54th St. AX 1-2022  
Colo., Denver—Landes, Zachary & Peterson Co., 275 Kalamath St.  
Wash., Seattle—Air-Mac, Inc., of Washington, 3838 Fourth Ave. So. MU 3388

### KAY-BRUNNER STEEL PRODUCTS, INC., 999 Meridian Ave., Alhambra, Calif. AT 2-2194 and CU 3-2141

Axles (truck, trailer), Electric furnace steel castings.

### KELLER TOOL DIV., GARDNER-DENVER CO., 1333 Fulton St., Grand Haven, Mich.

Hoists (air), Trolleys.

#### Branches

Calif., Los Angeles—7654 E. Slauson Ave. RA 3-8711  
Calif., San Francisco—811 Folsom St. EX 2-8747  
Colo., Denver—1727 E. 39th Ave. KE 4-0181  
Idaho, Wallace—407 Seventh St. Phone 1139  
Mont., Butte—215 E. Park St. Phone 2-2662  
Utah, Salt Lake City—113 W. Second So. St. EM 4-3202  
Wash., Seattle—615 Eighth Ave. SE 1115

### KELLEY CO., 316 E. Silver Spring Dr., Milwaukee 17, Wis.

Hi-Lo automatic dock boards.

#### Representatives

Ariz., Phoenix—James P. Kinney Co., 1101 Grand Ave.  
Calif., Los Angeles—Yale & Towne Mfg. Co., 6027 Whittier Blvd. RA 3-9761  
Calif., San Diego—James P. Kinney Co., 3948 Utah St.  
Calif., San Francisco—Industrial Truck Sales, 663 Second St. YU 6-4261  
Colo., Denver—Allis-Lee Equipment Co., 1133 Speer Blvd. MA 3-5311  
Idaho, Boise—Arnold Machinery Co., 5024 Gage St. Phone 2-1174  
N. Mex., Albuquerque—James P. Kinney Co., 1706 Central Ave. Dr.  
Ore., Portland—Charles H. Day Co., 225 S.W. First Ave. CA 9189  
Utah, Salt Lake City—Arnold Machinery Co., 334 W. 17th St. DA 2-5631  
Wash., Seattle—H. L. McElhaney Co., 425 Alaskan Way So. SE 5232

### KIMBERLY-CLARK CORP., Neenah, Wis.

Packing material (Kimpak interior packaging cellulose cushioning and surface protecting material).

#### Branch Office

Calif., San Francisco—155 Sansome St., DO 2-4216

#### Representatives

Ariz., Phoenix—Blake, Moffitt & Towne, 101 E. Buchanan St.  
Ariz., Phoenix—Zellerbach Paper Co., 702 No. 21st Ave.  
Calif., Long Beach—Blake, Moffitt & Towne, 903 W. Fairbanks Ave.  
Calif., Los Angeles—Blake, Moffitt & Towne, 242 So. Los Angeles St.  
Calif., Los Angeles—Ingram Paper Co., 6541 E. Washington Blvd.  
Calif., Los Angeles—Zellerbach Paper Co., 4000 E. Union Pacific Ave.  
Calif., Oakland—Blake, Moffitt & Towne, 21st and Union Sts.  
Calif., San Diego—Blake, Moffitt & Towne, 1929 Hancock St.  
Calif., San Francisco—Blake, Moffitt & Towne, 599 Eighth St.  
Calif., San Francisco—Zellerbach Paper Co., 534 Battery St.  
Colo., Denver—Carpenter Paper Co., 1504 23rd St.  
Colo., Denver—Graham Paper Co., 1625 Blake St.  
Idaho, Boise—Blake, Moffitt & Towne, P. O. Box 896  
Idaho, Boise—Dixon & Company, 1500 Grand Ave.  
Nev., Reno—Blake, Moffitt & Towne, 310 Quincy St.  
Nev., Reno—Zellerbach Paper Co., 420 Valley Rd.  
N. Mex., Albuquerque—Carpenter Paper Co., P. O. Box 536  
N. Mex., Albuquerque—Graham Paper Co., 119 So. John St.  
Ore., Portland—Blake, Moffitt & Towne, 17 S.E. Third Ave.  
Tex., El Paso—Carpenter Paper Co., 2300 E. Missouri St.  
Tex., El Paso—Graham Paper Co., 201 Anthony St.  
Utah, Salt Lake City—Carpenter Paper Co., 331 Rio Grande St.  
Utah, Salt Lake City—Dixon & Company, 159 W. Third St.  
Utah, Salt Lake City—Zellerbach Paper Co., P. O. Box 330  
Wash., Seattle—Blake, Moffitt & Towne, 4201 W. Marginal Way  
Wash., Spokane—Blake, Moffitt & Towne, W. 513 Railroad Ave.  
Wash., Tacoma—Blake, Moffitt & Towne, 1157 Thorne Rd.

### KINNEY MANUFACTURING DIV., THE NEW YORK AIR BRAKE CO., 3529 Washington St., Boston 30, Mass.

Pumps (liquid handling).

#### Branch Office

Calif., Los Angeles—6058 Venice Blvd. WE 8-7292

#### Representative

Calif., San Francisco—King-Knight Co., 360 Jefferson St. PR 6-2700

### KNICKERBOCKER CO., see TRUCK-MAN DIV.



**KOEHRING CO., 3026 W. Concordia Ave., Milwaukee 16, Wis.**  
Cranes, Trucks.

**Branch Representatives**  
Calif., Stockton—2200 Country Club Blvd.  
Ariz., Phoenix—Neil B. McGinnis Equipment Co., 500 So. Central Ave. AL 8-5591  
Calif., Bakersfield—San Joaquin Tractor Co., Hwy. 99 and California Ave. Phone 4-4517  
Calif., Los Angeles—Harron, Rickard & McCone, 3550 Santa Fe Ave. LO 5-8361  
Calif., San Francisco—Standard Machinery Co., 450 Bayshore Blvd. AT 2-2883  
Colo., Denver—McKelvey Equipment Co., 2375 15th St. GE 3338  
Idaho, Boise—Engineering Sales & Service, 410 Capitol Blvd. Phone 3-2535  
Mont., Billings—Western Construction Equipment Co., 505 No. 24th St. Phone 9-5501  
N. Mex., Albuquerque—Harry Cornelius Co., 1510 No. Second St. Phone 3-1776  
Ore., Portland—Columbia Equipment Co., 1240 S.E. 12th Ave. EA 7148  
Utah, Salt Lake City—Kimball Equipment Co., 222 W. 17th St. Phone 84-6109  
Wash., Seattle—Pacific Hoist & Derrick, 3200 Fourth Ave. So. EL 1860  
Wash., Spokane—American Machine Co., 1026 W. Broadway. FA 2591

**KOEHRING CO., see also KWIK-MIX CO., A DIV.**

**KOLMAN MANUFACTURING CO.,** W. 12th St. Rd., Sioux Falls, S. Dak.  
Conveyors (belt), Cranes (yard, portable), Pulleys (conveyor).

**Branch Office**  
Calif., San Francisco 22—S. A. Madrid, 1739 32nd Ave. OV 1-8346  
**Representatives**  
Ariz., Phoenix—Equipment Sales Co., 720 So. 19th Ave. AL 8-7151  
Calif., Fresno—Allied Equipment Co., 1824 Santa Clara. Phone 6-0441  
Calif., Los Angeles—Brown-Bevis Industrial Equipment Co., 6550 E. Washington St. PA 8-7161  
Calif., Sacramento—Sacramento Valley Tractor Co., Broadway and 19th Sts. GL 3-1727  
Calif., Oakland 20—Spears-Wells Machinery Co., 1832 W. Ninth St., GL 1-3432  
Colo., Denver—Farris-Moritz Equipment Co., 5790 Colorado Blvd. AT 8-2684  
Idaho, Boise—The Sawtooth Co., 1115 Grove St. Phone 3-3603  
Mont., Butte—Hall-Perry Machinery Co., 812 E. Iron St. Phone 2-2323  
Nev., Elko—D. Machinery Co., 251 W. Commercial St. Phone 92  
N. Mex., Albuquerque—J. D. Coggins Co., 1717 Second St., N.W. Phone 3-5505  
Ore., Portland—Contractors Equipment Corp., 2727 S.E. Union Ave. BE 5-4131  
Utah, Salt Lake City—Rasmussen Equipment & Supply Co., 1960 So. Second W. HU 5-5478  
Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave., So. MU 3388  
Wyo., Cheyenne—Wortham Machinery Co., 517 W. 17th St. Phone 7-7766

**KUGHLER DEVELOPMENT CORP.,** 115-117 E. 129th St., New York 35, N. Y.

Lift truck attachments for drum handling and gaining of extra height.

**Representatives**  
Calif., Los Angeles—J. P. Kinney Co., 5141 Telegraph Rd.  
Calif., Oakland—Lifton Inc., 6601 San Leandro. SW 8-9100

**K. W. BATTERY COMPANY, INC.,** 3555 Howard St., Skokie, Ill.  
Batteries.

**Representatives**  
Calif., San Francisco—Scott-Meehan Co., 439 Bryant St. DO 2-8428  
Colo., Denver—Westric Battery Co., 4201 Galapago St. GE 3-6322

**KWIK-MIX CO., DIV. OF KOEHRING CO.,** 235 W. Grand Ave., Port Washington, Wis.

Trucks (bag, barrel, drum, box type, elevating or lifting, factory and warehouse, gasoline fork, motorized hand, industrial, gasoline lift, hydraulic lift, power-driven lift, motor, packing house, pallet, skid handling).

**Representatives**  
Ariz., Phoenix—Neil B. McGinnis Co., 500 So. Central Ave.

Calif., Bakersfield—San Joaquin Tractor Co., P. O. Box 216, Station B  
Calif., Los Angeles—Harron, Rickard & McCone Co., 3550 Santa Fe Ave.  
Calif., Maywood—Criterion Equipment Co., 6026 So. Atlantic Blvd.  
Calif., San Francisco—Standard Machinery Co., 450 Bayshore Blvd.  
Calif., South Gate—Cost Reduction Equipment Co., 5200 Chakemco St.  
Colo., Denver—McKelvey Machinery Co., 2375 15th St.  
Colo., Denver—Plant Equipment Co., 1863 Wazee  
Idaho, Boise—Engineering Sales & Service, Inc., 410 Capitol Blvd.  
N. Mex., Albuquerque—Harry Cornelius Co., 1510 No. Second St.  
N. Mex., Hobbs—Leaco Co.  
Ore., Portland—Columbia Equipment Co., 1240 S.E. 12th Ave.  
Utah, Salt Lake City—Kimball Equipment Co., 232 W. 17th St.  
Utah, Salt Lake City—National Equipment Co., 101 W. Second St.  
Wash., Seattle—Pacific Hoist & Derrick Co., 3200 Fourth Ave.  
Wash., Spokane—American Machine Co., 1026 W. Broadway

**LAHER SPRING & TIRE CORP., 2615** Magnolia, Oakland 7, Calif.  
Batteries, Tires (industrial truck and trailer), Trucks (electric industrial).

See advertisement on page 69

**Branch Offices**  
Ore., Portland—15th and Davis. CA 7-1406  
Utah, Salt Lake City—546 So. State. EM 3-5871  
Wash., Seattle—714 E. Pike. EA 7383  
Wash., Spokane—1319 W. Second Ave. RI 7-3105  
**Representatives**  
Calif., Los Angeles—J. P. Kinney Co., 5141 Telegraph Rd. AN 9-7411  
Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave., So. MU 3388  
Wash., Spokane—Air-Mac, Inc., E. 3710 Trent. KE 5-2005

**LAMSON CORP., Lamson St., Syracuse 1, N. Y.**  
Conveyors (automatic, bag and bale, belt, chain or link, continuous flow, drag, flight, foundry, gravity roller, live roller, over-head, pallet, pneumatic, portable, skate, slot, trolley and special). Storage racks, Conveyor rollers, Conveying, Elevating and Portable tables, Pallet loaders, Erecto conveyor (pre-engineered) units.

**Branches**  
Calif., Los Angeles—306 E. Washington Blvd. RI 7-0615  
Calif., San Francisco—555 Bryant St. SU 1-3852  
**Representatives**  
Colo., Denver—Wm. Colin Kirk & Associates, 1197 Stout St. KE 4440  
Wash., Seattle—H. L. Kirkwood, 2202 First Ave. W. SE 6860  
Wash., Seattle—Thurloow-Mac, Inc., 2405 11th Ave. S.W. EL 5272 and MU 1323  
(Erecto Dealers)  
Calif., Berkeley—Lamson Mobilift Corp., 2730 San Pablo. AS 3-5535  
Calif., Fresno—Valley Handling Equipment Co., 3807 E. Jensen

**LAMSON MOBILIFT CORP., 835 S.E.** Main St., Portland 14, Ore.  
Industrial trucks (gasoline powered, both stand-up and control models and sit-down models).

**Branch Offices**  
Calif., Berkeley—2730 San Pablo Ave. AS 3-5535  
Ore., Portland—835 S.E. Main St. BE 2-1108  
**Representatives**  
Ariz., Phoenix—J. H. Holan Corp., 302 East Pima St. AL 8-2270  
Calif., Alhambra—George M. Prescott Co., 825 So. Fremont Ave. CU 3-3114  
Calif., Fresno—Valley Handling Equipment Co., 3807 E. Jensen Ave. Phone 4-4962  
Calif., San Diego—Charles T. Willis & Son, 1310 Avenue K. BE 2-3696  
Hawaii, Honolulu—Von Hamm-Young Co., Ltd., King and Bishop Sts. Phone 6-3541  
N. Mex., Albuquerque—N. C. Ribble Co., 1304 No. Fourth. Phone 3-3733  
Ore., Klamath Falls—McVey Machine Shop., 2625 Green Springs Dr. Phone 6901  
Ore., Portland—F. E. Bennett Co., 426 N.W. 6th St. CA 8-2321  
Utah, Salt Lake City—Industrial Supply Co., 135 Social Hall Ave.  
Wash., Seattle—Cascade Handling Equipment Co. (Alaska Rep.), 410 Battery St. MA 7-0669  
Wash., Seattle—Masteron's Equipment Supplies, Inc., 2720 Westlake No. GA 0245

Wash., Spokane—Standard Cycle & Supply Co., 1811 E. Sprague Ave. LA 1321  
Wash., Tacoma—Masteron's Equipment Supplies, Inc., 2301 So. Tacoma Way. HI 9547  
Wash., Yakima—Northwest Equip. Co., P. O. Box 73. Phone 9925  
B. C. Vancouver—The Canadian Fairbanks-Morse Co., Ltd., 798 Beatty St.  
B. C., Victoria—The Canadian Fairbanks-Morse Co., Ltd., 1500 Broad St.

**F. N. LANGSENKAMP CO., 229 E.** South St., Indianapolis 25, Ind.

**Deck boards. Representatives**  
Calif., Los Angeles—A. Raymond Moore, 1749 E. Florence Ave. LO 8-6606  
Calif., San Francisco—King Sales & Engineering Co., 441 Folsom St. EX 2-7664

**LEEDEN, INC., see ENGINEERING PRODUCTS CO., DIV. OF LEEDEN, INC.**

**LEE ENGINEERING CO., 269 Armistice Blvd., Pawtucket, R. I.**

Elevators (portable tiering), Stackers (portable electric, portable hand), Trucks (electric fork, hand, motorized hand, hand lift, hand-electric lift, hydraulic lift, skid handling, straddle, electric tiering), Truck floorlocks.

**Representatives**  
Calif., Los Angeles—Robco, Inc., 5348 Jilison St. AN 5126  
Colo., Denver—Urban M. Lodge, 2689 So. Jackson. AL 6-6127

**LEE RUBBER & TIRE CORP., see** REPUBLIC RUBBER DIV.

**LESCHEN WIRE ROPE DIV., H. K. PORTER CO., 2727 Hamilton Ave.,** St. Louis 12, Mo.

Slings (wire rope), Wire rope.  
**Branches**  
Calif., Los Angeles—6424 E. Fleet St. RA 8-1395  
Calif., San Francisco—520 Fourth St. GA 1-8184  
Wash., Seattle—2724 First Ave. So. SE 0851

**LEWIS, G. B., CO., 406 Montgomery** St., Watertown, Wis.

Woven wood-and-wire returnable shipping boxes; 4-wheel box trucks; stacking and skid boxes; Fiberglass reinforced polyester tote boxes, trays and 4-wheel panel trucks.

See advertisement on page 188

**Representatives**  
Calif., Fresno—Valley Forklift Rental & Equipment Co., 2424 So. Railroad Ave. Phone 8-2074  
Calif., Los Angeles—Irvine G. King & Co., 821 Mateo St. TU 3176  
Calif., Oakland—E. C. Buehrer Associates, Inc., 253 Fourth St. TE 6-2682  
Ore., Portland—Oregon Handling Equipment Co., 2949 N.W. St. Helens Rd. AT 4196  
Utah, Salt Lake City—Equipment Supply Co., 16 Post Office Pl. Phone 3-9074  
Wash., Seattle—A.I.M. Plastics Co., 408 Broad St. MA 0279

**LEWIS-SHEPARD PRODUCTS, INC.,** 1016 Walnut St., Watertown, Mass.

Carts (hand, push, ether), Cranes (hand power), Jacks (hydraulic), Racks (pallet, storage, ether), Stackers (portable electric, portable hand), Trucks (bag, barrel, drum, box type, die handling, elevating or lifting, factory and warehouse, electric fork, hand, motorized hand, industrial, hand lift, hand-electric lift, hand-mechanical lift, hydraulic lift, power-driven lift, packing house, pallet, paper roll, sheet handling, skid handling, straddle, electric tiering, ether), Wheels (general industrial, hand truck, rubber tired, tractor, trailer).

**Representatives**  
Ariz., Phoenix—L. J. Clarke, 18 E. Lincoln St. AL 4-1754  
Ariz., Tucson—Lyman J. Clarke, 2625 No. First Ave. Phone 4-6233  
Calif., Los Angeles—M. E. Canfield Co., 419 E. Third St. MA 6-6606  
Calif., San Francisco—Howard Burt & Sons, 505 Standish St. EM 8-2806  
Colo., Denver—Raymond J. Purinton, 1754 Blake St. AL 5-8452  
Ore., Portland—Liftruck & Equipment Co., 2121 N.W. Thurman St. CA 8-4508  
Utah, Salt Lake City—Modern Equipment Co., 52 W. Second St. St. Phone 9-2171  
Wash., Seattle—Liftruck & Equipment Co., 558 First Ave., So. MU 6336



## LIFT - LINK-BELT

### LIFT TRUCKS, INC., 2425 Spring Grove Ave., Cincinnati 14, Ohio

Tractors (electric, warehouse), Trucks (electric fork, industrial, motorized hand, hand lift, hand-electric lift, hand mechanical lift, hydraulic lift, power-driven lift, pallet, skid handling, straddle, electric forklift).

**Representatives**  
Calif., Los Angeles—McKinley Equipment Corp., 1557 Esperanza, AN 9-0567  
Calif., San Francisco—McKinley Equipment Corp., 1485 Bayshore Blvd. JU 6-2800  
Colo., Denver—Plant Equipment Co., 1863 Wazee St. AL 5413  
Utah, Salt Lake City—Lang Co., P. O. Box 479, Phone 3-5831  
Wash., Seattle—Burleigh Co., 5245 Pullman FL 5245

### THE LINCOLN ELECTRIC CO., 22801 St. Clair Ave., Cleveland 17, Ohio

Battery Chargers.

See advertisement on page 38

#### Branch Offices

Calif., Los Angeles—2661 So. Yates Ave. RA 3-7281  
Calif., San Francisco—1303 Stanford Ave. OL 5-6126  
Colo., Denver—1224 Walnut St. AC 2-9533  
Ore., Portland—1034 N.E. Russet St. BU 9-8881  
Wash., Seattle—543 W. Nevada Ave. EL 2235

**Representatives**  
Mont., Billings—Great Northern Tool & Supply, 2224 Minnesota, Phone 2-2175  
Utah, Salt Lake City—Industrial Supply Co., 121 Social Hall, Phone 3-6727

### LINCOLN ENGINEERING CO., DIV. OF THE MCNEIL MACHINE & ENGINEERING CO., 4010 Goodfellow Blvd., St. Louis 20, Mo.

Pumps (heavy material handling).

#### Branch Offices

Calif., Berkeley—3033 San Pablo Ave. AS 3-6726  
Calif., Los Angeles—2844 So. Grand Ave. RI 8-0151  
Ore., Portland—1018 S.E. Eighth St. BE 4-7469  
**Representatives**  
Ariz., Mesa—Bauer's Parts & Equipment Co., 221 W. Main St.  
Ariz., Phoenix—Colyear Motor Sales Co., 338 W. Adams St.  
Ariz., Stafford—Motor Supply Co., 725 Fifth St.  
Ariz., Tucson—Motor Supply Co., 140 So. Sixth  
Calif., Alhambra—Frank Cox Equipment, 3000 Valley Blvd.  
Calif., Anaheim—Smirl Supply Co., 11031 Hwy. 101  
Calif., Bakersfield—Bloxxom & Co., 514 E. 15th  
Calif., Bakersfield—Frazier Wright, 2530 Chester Ave.  
Calif., Burbank—Jet-Lube, Inc., 3093 No. California St.  
Calif., Concord—Gil's Hardware, 1835 Colfax  
Calif., Corcoran—Sawtelle & Rosprim  
Calif., Delano—George F. Haddican, High St.  
Calif., El Centro—W. H. Douthitt Steel & Supply Co., Rt. No. 1  
Calif., Eureka—Humboldt Supply Co.  
Calif., Fresno—Allied Equipment Co., 1824 Santa Clara  
Calif., Fresno—Gordon Equipment Co., 2309 Los Angeles St.  
Calif., Fresno—Rol-Pak Filter Service Co., 3063 Church St.  
Calif., Glendale—Air Associates, Inc., 1231 Airway Dr.  
Calif., Glendale—Allube Corp., 928 Allen Ave.  
Calif., Lompoc—Hobbs Bros., 136 No. "H" St.  
Calif., Los Angeles—Bevis Machine Co., 406 So. Main St.  
Calif., Los Angeles—Brent Diesel Filter Service, 440 Seaton St.  
Calif., Los Angeles—Carburetor Electrical Service, 1904 E. Seventh St.  
Calif., Los Angeles—Degen-Fiege Co., 4559 W. Sheila St.  
Calif., Los Angeles—Frazier-Wright Co., 2331 So. Hill St.  
Calif., Los Angeles—Garlinghouse Brothers, 2415 E. Washington Blvd.  
Calif., Los Angeles—The Hubbard Co., 5041 Santa Fe Ave.  
Calif., Los Angeles—Johnston Testers, Inc., 3035 Andrita  
Calif., Los Angeles—Larson Equipment Co., 2421 E. 57th St.  
Calif., Los Angeles—Marshall Tool & Supply Corp., 2850 E. Olympic Blvd.  
Calif., Los Angeles—The Republic Supply Co. of Calif., 2600 So. Eastland Ave.  
Calif., Los Angeles—Shaw Sales & Service, 5100 Anaheim-Telegraph  
Calif., Los Angeles—A. Shelbourne Co., 739 Ceres Ave.

Calif., Los Angeles—Spray Equipment Co., 2222 E. Washington Blvd.  
Calif., Los Angeles—United Equipment & Supply, 1859 Riverside  
Calif., Los Angeles—Warren & Bailey Co., 3523 So. Garfield  
Calif., Madera—Allied Equipment Co., 109 W. Yosemite  
Calif., North Hollywood—B & T Industrial Supply, 13008 Sherman Way  
Calif., Oakland—Bay Cities Equipment Co., 2792 Cypress St.  
Calif., Oakland—Bearing Specialty Co., 2424 Webster St.  
Calif., Oakland—Forse-Glatt Western Sales Co., 4148 MacArthur Blvd.  
Calif., Oakland—National Supply, 610 16th St.  
Calif., Oakland—Pacific Tool & Supply Co., 251 Eighth St.  
Calif., Oakland—Viking Supply Co., 1267 W. Grand Ave.  
Calif., Pomona—Reliable Bearing & Supply Co., 246 So. Towne Ave.  
Calif., Redley—Allied Equipment Co., 1230 G  
Calif., Richmond—Tieslau Co., 900 Hoffman  
Calif., Sacramento—Gerlinger Motor Parts, 2020 "K" St.  
Calif., Sacramento—Knapp Industrial Service Co., 515 12th St.  
Calif., Salinas—Farmers Mercantile Co.  
Calif., San Bernardino—Reliable Bearing & Supply Co., 263 So. "E" St.  
Calif., San Diego—Minute Mower Service, 737 West St.  
Calif., San Diego—Oil Filter Service Co., 2405 E. Harbor Dr.  
Calif., San Diego—Shaw Sales & Service, 2175 Newton Ave.  
Calif., San Francisco—Baker-Hamilton, 700 Seventh St.  
Calif., San Francisco—Bearing Specialty Co., 128 Texas  
Calif., San Francisco—Coast Equipment Co., 444 Eighth St.  
Calif., San Francisco—C. W. Marwedel, 1235 Mission St.  
Calif., San Francisco—Pauli & Griffin Co., 609 Sixth St.  
Calif., San Francisco—Wait Motor Supply Co., 234 Seventh St.  
Calif., San Jose—Ward Farnsworth, 383 No. 17th St.  
Calif., San Leandro—K & H Sales, 1800 Williams St.  
Calif., San Leandro—The Republic Supply Co., 1919 Williams St.  
Calif., Stockton—Hickinbotham Bros., Ltd., 536 So. Aurora St.  
Calif., Stockton—Industrial Parts Supply Co., 3900 No. 99 Hwy.  
Calif., Torrance—National Supply Co.  
Calif., Vernon—Gorman & Co., 5420 So. Santa Fe  
Calif., Watsonville—Farmers Mercantile Co.  
Colo., Denver—The Mine & Smelter Supply Co., 1422 17th St.  
Colo., Denver—Plant Equipment Co., 1400 Market St.  
Idaho, Boise—Intermountain Equipment Co.  
Idaho, Pocatello—Intermountain Equipment Co., 210 No. Fourth Ave.  
Nev., Fallon—Motor Supply Co., 222 Center St.  
N. Mex., Carlsbad—Car Parts Depot, Inc.  
Ore., Eugene—Oregon Supply Co.  
Ore., Klamath Falls—Fred E. Barnett Co.  
Ore., Portland—Davis Industrial Products Co., 338 N.W. Sixth Ave.  
Ore., Portland—General Rubber & Supply Co., 101 S.W. First St.  
Ore., Portland—Goodyear Rubber & Asbestos Co., 205 N.W. Fifth Ave.  
Ore., Portland—Oil Filter Service Co., 615 S.E. Market St.  
Ore., Portland—Woodbury & Co., 585 No. Lagoon, Swan Island  
Ore., Roseburg—Davis Industrial Product Co.  
Utah, Salt Lake City—Oscar E. Chytraus Co., 155 W. Second St.  
Utah, Salt Lake City—Motor Mercantile Co., 126 S.W. Temple  
Wash., Ephrata—Intermountain Equipment Co., 1220 "B" St. S.W.  
Wash., Pasco—Intermountain Equipment Co.  
Wash., Seattle—Campbell Industrial Supply Co., 3433 Airport Way at Spokane  
Wash., Seattle—Oil Filter Service Co., Inc., 1019 Westlake, No.  
Wash., Seattle—Steam Supply & Rubber Co., 123 Jackson St.  
Wash., Seattle—Yukon Equipment, Inc., 327 Colman Bldg.  
Wash., Spokane—American Machine Co., W. 1026 Broadway  
Wash., Spokane—Intermountain Equipment Co., E. 611 Sprague Ave.  
Wash., Spokane—A. G. Mohn Co., E. 102 Sprague Ave.  
Wash., Spokane—Motor Supply Co., W. 1202 First Ave.  
Wash., Spokane—Oil Filter Service Co., Inc., 3720 E. Trent St.  
Wash., Tacoma—Oil Filter Service Co., Inc., 1216 Tacoma Ave., So.

### LINK-BELT CO., Prudential Plaza, Chicago 1, Ill. RA 6-7790

Bearings (ball, roller, babbitted), Belting (chain link, conveyor, elevator), Storage bins and gates, Chains, Sprockets, Clutches (friction), Conveyors (apron, automatic, bag, bale, belt, bucket, chain or link, continuous flow, drag, flight, foundry, overhead, oscillating, pallet, screw, slat, trolley, truck-tow, vertical, vibrating, special and other), Dumpers, Unloaders (railroad car), Elevators (barrel, packages, belt, bucket, continuous screw, vertical, other), Feeders (apron, belt, oscillating, reciprocating, rotary-table, screw), Gear drives (in-line, helical, parallel-shaft, worm, motorized), Gear-motors, Moto-gears, Hoists (skip), Ice crushers, Ice slingers, Pullers and Spotters (car), Pulleys (conveyor, power transmission), Rollers (conveyors), Scoops (power unloading), Speed reducers, Tables (conveying elevating), Trolleys, Variable speed drives, Wheels (conveyor, sprocket) Winches, Windlasses.

#### Western Plants, Branch Stores and District Offices

Calif., Los Angeles—361 So. Anderson St. AN 8-6171  
Calif., San Francisco—400 Paul Ave. JU 7-6400  
Colo., Denver—Schloss & Shubart, 1626 Wazee St. AC 2-2741  
Ore., Portland—3030 N. W. Industrial St. CA 6-2601  
Utah, Salt Lake City—108 So. Fourth W. St. DA 2-2539  
Wash., Seattle—3405 Sixth Ave. So. SE 8200  
Wash., Spokane—No. 1303 Washington St. FA 8-5820  
**Representatives**  
Ariz., Phoenix—Thunderbird Sales Corp., 2255 W. McDowell, AL 4-8874  
Ariz., Prescott—Arizona Mining Supply Corp., P. O. Box 110, Phone 310-311  
Calif., Bakersfield—California Truck & Industrial Equipment Co., 2801 Brundage Lane, FA 5-5914  
Calif., Colton—Valley Industrial Supply Co., 401 So. Eighth St. TA 5-5914  
Calif., El Centro—Valley Auto Supply, 633 State St. EL 2-3391  
Calif., Eureka—Fred E. Barnett Co., Broadway and Harris Sts. Phone 2-3791  
Calif., Fresno—Bearings Supply Co., 2933 Hamilton Ave. AD 3-7144  
Calif., Healdsburg—Healdsburg Machine Co., 452 West St. Phones 386, 387  
Calif., Long Beach—Barnes & Delaney, 2600 Atlantic Ave. (from Long Beach GA 4-1601) —from Los Angeles, NE 6-1785  
Calif., Los Angeles—General Bearings Co., 2017 Santa Fe Ave. TR 2338  
Calif., Modesto—Geiger Iron Works, Grand and Willow, LA 3-8387  
Calif., Monterey—Sweet Service Co., 534 Washington St. Phone 5-4119  
Calif., Oakland—American Ball & Roller Bearing Co., 273 26th St. HI 4-8892  
Calif., Oakland—Hoffmeyer Belting & Supply Co., 541 E. Eighth St. TE 4-8636  
Calif., Ontario—Valley Industrial Supply Co., Inc., 1170 Holt Blvd. YU 6-3827  
Calif., Redding—Cascade Industrial Supply, Inc., Hwy. 99 So. Phone 1195  
Calif., Sacramento—Geiger Iron Works, 2425 24th St. GL 1-7214  
Calif., San Diego—Gould Hardware & Machinery Co., 2212 Main St. BE 2-5174  
Calif., San Jose—Orchard Supply Hardware, Industrial Div., 720 W. San Carlos St. CY 2-6282  
Calif., Santa Cruz—Sweet Service Co., 504 Front St. GA 3-5697  
Calif., Stockton—Geiger Iron Works, Scotts Ave. and Pilgrim St. HO 6-8623  
Calif., Ukiah—Fred E. Barnett Co., No. Highway 101 HO 2-6554  
Calif., Watsonville—Sweet Service Co., 38 Alexander St. Phone 4-4775  
Idaho, Parma—Transmission Products (Div. Parma Water Lifter Co.) Phone 2-2611  
Idaho, Pocatello—Western Bearings, Inc., 156 So. Third St. Phone 3518  
Mont., Missoula—Missoula Mercantile Co., 1600 Harker, Phone 2-2111  
Nevada, Reno—Sierra Machinery, Inc., 307 Morrill Ave. FA 3-1301  
Ore., Coos Bay—Coos Bay Supply Co., 1023 So. Broadway CD 7-4111  
Ore., Eugene—American Steel & Supply Co., 51 E. Seventh St. Phone 5-0373  
Ore., Klamath Falls—Fred E. Barnett Co. of Ore., 600 Spring St. TU 4-5133  
Ore., Medford—American Steel & Supply Medford Inc., 703 So. Grape St. ME 2-7131  
Ore., Portland—Power Transmission Products, 1107 N.W. 14th Ave. CA 7-1271  
Ore., Roseburg—Douglas Supply Co., 649 No. Rose St. OR 3-6638  
Ore., Salem—Stevens Equipment Co., 110 Division St. EM 4-2281  
Utah, Price—H & J Supply Co., 540 So. Third W. St. Phone 1036  
Utah, Salt Lake City—Industrial Supply Co., Inc. 121-135 Social Hall Ave. EM 3-6727  
Wash., Aberdeen—Grays Harbor Equipment Co., 419 So. F St. Phones 331, 397



Wash., Everett—Everett Trans. & Rubber Co., 2925 Rucker Ave. BA 6767 or 1505  
 Wash., Hoquiam—Lamb-Grays Harbor Co., Inc., Blaine and Firman Sts. Phone 1000  
 Wash., Seattle—Bearing Engineering & Supply Co., 65 Horton St. MA 2744  
 Wash., Spokane—Carter-Miller Mill Furnishing Co., No. 1320 Ash St. FA 7-6624  
 Wash., Walla Walla—Drumheller Co., 1 W. Alder St. Phone 48  
 Wash., Wenatchee—Wells & Wade, Inc., 201-215 So. Wenatchee Ave. NO 2-7173  
 Wash., Yakima—Central Chain & Transmission Co., Inc., 709 So. First St. GL 7-6188

**LIPPMANN ENGINEERING WORKS,**  
 4603 W. Mitchell St., Milwaukee  
 14, Wis.

Bins, Conveyors (apron, bag and bale, belt, bucket, right, foundry, gravity roller, live roller, overhead, pulley, portable, screw, skate, slot), Elevators (bucket), Loaders (portable, self-propelled), Pulleys (conveyor), Rollers (conveyor).

**Representatives**  
 Ariz., Phoenix—Western Machinery Co., 820 No. 17th St.  
 Calif., Los Angeles—Larson Equipment Co., 2421 E. 57th St. LU 5-1181  
 Calif., San Francisco—Coast Equipment Co., 444 Eighth St.  
 Idaho, Idaho Falls—Southern Idaho Equipment Co., 2055 W. Yellowstone Hwy.  
 Utah, Salt Lake City—Lang Construction Co., First South and Second West. DA 8-8341  
 Wash., Seattle—Hulse Machinery Co., Inc., 3300 Fourth Ave. So.  
 Wyo., Casper—Moss Equipment & Supplies, P. O. Box 1727

**LITTLE GIANT PRODUCTS, INC., 1600**  
 No. Adams St., Peoria 3, Ill.

**Winches.**  
 (Gripper arms and sweepers stocked by lift truck dealers in all major Western cities. Winches stocked by construction equipment dealers in all major Western cities.)

**LONGVIEW FIBRE CO., Longview,**  
 Wash.

**Corrugated and fibre boxes.**  
**Branches**  
 Calif., Los Angeles—4955 Maywood Ave.  
 Calif., Fresno—925 No. Fulton St.  
 Calif., Oakland—8511 Blaine St.  
 Calif., San Francisco—1 Montgomery St.  
 Ore., Portland—U. S. National Bank Bldg.  
 Wash., Seattle—5901 E. Marginal Way  
 Wash., Yakima—Holtzinger Bldg.

**LOUDEN MACHINERY CO., 607 W.**  
 Broadway, Fairfield, Ia.

Conveyors (overhead), Cranes (gantry, jib, pillar, swing, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power overhead, I beam overhead, monorail overhead), Hoists (monorail).

See advertisement on page 23

**Representatives**  
 Calif., Los Angeles—Alden Equipment Co., 47666 Wagner Station. FA 1-0360  
 Calif., San Francisco—Acme Equipment Co., 840 Harrison St. EX 2-1560  
 Colo., Denver—Plant Equipment Co., 1400 Market St. AL 5-5411  
 Ore., Portland—Hallidie Machinery Co., 1915 N.E. Union. AT 2-2244  
 Utah, Salt Lake City—Utility Engineers, Inc., 630 Dooly Bldg. Phone 3-4682  
 Wash., Seattle—Hallidie Machinery Co., Inc., 210 Hudson St. LA 9520  
 Wash., Spokane—Hallidie Machinery Co., Inc., 2518 No. Division. EM 7131

**LUFKIN FOUNDRY & MACHINE CO.,**  
 Lufkin, Tex.

Herringbone gear reducers, High speed increasers (herringbone or double helical).

See advertisement on pages 102-103

**Branch Offices**  
 Calif., Bakersfield—30th and M Sts. FA 7-8564  
 Calif., Los Angeles—5959 So. Alameda. LU 5-1201  
 Colo., Denver—1423 Mile High Center. AL 5-1616  
 Mont., Sidney—P. O. Box 551. Phone 861  
 N. Mex., Hobbs—P. O. Box 104. EX 3-5211  
 Wyo., Casper—P. O. Box 1849. Phone 3-4670  
**Representative**  
 Ore., Portland—J. W. Minder Chain & Gear Co., 307 S.E. Hawthorne Blvd. BE 6-1131

**MAGLINE, INC., P. O. Box 402, Pin-**  
 conning, Mich.

Carts (hand), Conveyors (gravity roller), Deck boards, Loading platform, Loading ramps, Rollers (conveyor), Tongs, Trucks (bag, hand), Pallet dollies.

See advertisement on page 114

**Representatives**  
 Ariz., Phoenix—Kistler Industrial Service, 902 So. Central Ave. AL 2-7217  
 Calif., Los Angeles—W. T. Billard, Inc., 734 E. Third St. MI 2659  
 Calif., South San Francisco—Hamerslag Equipment Co., 110 Freeway Blvd. JU 3-5757  
 Colo., Denver—Plant Equipment Co., 1863 Wazee St. AL 5-5418  
 Ore., Eugene—Air-Mac, Inc., P. O. Box 653  
 Ore., Portland—Air-Mac, Inc., 1435 S.E. Union Ave. BE 4-6524  
 Utah, Salt Lake City—Equipment Supply Co., 16 Post Office Pl. Phone 3-9074  
 Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave. So. MU 3383  
 Wash., Spokane—Air-Mac, Inc., E. 3710 Trent Ave. KE 0561  
 Wash., Yakima—Air-Mac, Inc., 315 No. Grandview. Phone 2-1552

**MAGNESIUM COMPANY OF AMERICA,**  
 East Chicago 17, Ind.

Aluminum factory and warehouse trucks (platform, multi-deck, bin and specials) mfd. at El Segundo, Calif. Magnesium dock boards, dock ramps, yard ramps, two-wheel hand trucks and roller dollies mfg. at East Chicago, Ind.

**West Coast Manufacturing Plant**  
 Calif., El Segundo—1017 El Segundo Blvd. OR 8-4285

**Representatives**  
 Ariz., Phoenix—L. J. Clarke & Co., 18 E. Lincoln St. AL 4-1754  
 Ariz., Tucson—L. J. Clarke & Co., 2625 No. First Ave. MA 4-6233  
 Calif., Fresno—All Bearing Sales & Service Co., 602 Fulton St. AD 7-7416  
 Calif., Redding—J. R. Rolfe Equipment Corp., 3150 Nickolet Lane  
 Calif., Sacramento—J. R. Rolfe Equipment Corp., 3200 Jay St. HU 4-8248  
 Calif., San Diego—Utility Trailer Sales Co., 1950 Main St. BE 9-1384  
 Calif., San Francisco—Ira G. Perin Co., 575 Howard St. GA 1-1827  
 Calif., Stockton—J. R. Rolfe Equipment Corp., 1654 Valencia St.  
 Ore., Portland—F. E. Bennett Co., 426 N.W. Sixth Ave. CA 8-2321  
 Utah, Salt Lake City—Materials Handling Engineers, 334 W. 17th St. EL 5-8571  
 Wash., Seattle—Materson's Equipment Supplies, Inc., 2720 Westlake, No. GA 0245

**MAGNESIUM FABRICATORS, INC.,**  
 201 W. Center St., Linwood, Mich.

Deck boards, Ramps (loading).

**Representatives**  
 Calif., Los Angeles—Green-Penny Co., 421 E. Washington St.  
 Colo., Denver—Urban M. Lodge, 2698 So. Jackson. AL 5-6127  
 Utah, Salt Lake City—Modern Equipment Co., 52 W. Second So. St.

**MAIN BELTING CO., THE, E. Main**  
 St., Middletown, Conn.

Belting (conveyor, canvas, elevator).

**Distributor**  
 Calif., Oakland 6—555 Fifth Ave.

**Representative**  
 Calif., Los Angeles—C. R. Davis Co., 422 E. 3rd. MU 3144

**MANNING, MAXWELL & MOORE,**  
 INC., SHAW-BOX CRANE & HOIST  
 DIV., Muskegon, Mich.

Cranes (charging and drawing, gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, hand power traveling overhead, I beam overhead), Hoists, (chain, crane, derrick, drum, electric, hand, monorail, portable, traveling), Trolleys.

See advertisement on page 97

**Branches**  
 Calif., Los Angeles—1820 Rio Vista Ave. AN 3-6133  
 Calif., San Francisco—1295 Folsom St. UN 1-3870  
 Wash., Seattle—2302 Second St. No. MA 3496

**MANSAYER INDUSTRIES, INC., 310**  
 East St., New Haven 8, Conn.

Grabs, Hoist and crane attachments.

**Representatives**  
 Ariz., Phoenix—Kistler Industrial Service, 902 So. Central Ave.  
 Calif., Los Angeles—Alden Equipment Co., P. O. Box 47666, Wagner Station.  
 Calif., Lynwood—J. W. Lafferty, 11371 So. Atlantic Ave.  
 Calif., San Francisco—Ira G. Perin Co., 575 Howard St.  
 Colo., Denver—Hahn Equipment Co., 1795 Sheridan  
 Colo., Denver—Urban M. Lodge, P. O. Box 8336 University Park Station  
 N. Mex., Albuquerque—E. D. Flourney & Co., 217 So. Sixth St.  
 Ore., Portland—McMahon Bros., Inc., 204 Fitzpatrick Bldg.  
 Utah, Ogden—Horsley Co., 401 Kiesel Bldg.  
 Utah, Salt Lake City—Modern Equipment Co., 52 W. Second So. St.  
 Wash., Seattle—Hallidie Machinery Co., 210 Hudson St.

**MARION METAL PRODUCTS CO.,**  
 Cheney Ave., Marion, Ohio

Dump bodies and hoists (motor truck), Elevating tailgate (truck).

**Representatives**  
 Ariz., Phoenix—J. H. Holan Corp., 302 E. Pima St. AL 3-4153  
 Ariz., Tucson—Bogard GMC Co., 2626 So. Fourth Ave. Phone 3-5433  
 Calif., Fresno—Ruckstell California Sales Co., 410 Broadway. Phone 6-4296  
 Calif., Los Angeles—Truck Bodies Co., 2865 E. 26th St. AN 2-2184  
 Calif., Oakland—Ruckstell California Sales Co., 2985 Ford St. KE 3-2541  
 Colo., Denver—Woeber Auto Body & Mfg. Co., 4950 Jackson St. FL 5-2366  
 Mont., Great Falls—Erwin H. Johnson, Inc., 1101 Third St. N.W. 6-6662  
 N. Mex., Albuquerque—M & F Equipment Co., 824 Arno St., N. E. Phone 3-3793  
 Ore., Portland—Pacific Body Builders, Inc., 1812 N.E. Grand. TR 1128  
 Wash., Seattle—Washington Truck Equipment, 3626 Airport Way. RI 7-1088  
 Wash., Spokane—Alloy Mfg. Co., Route 1. MA 8676

**MARION POWER SHOVEL CO., 617**  
 W. Center St., Marion, Ohio

Cranes (yard, truck tractor), Shovels (diesel, electric, crawler mounted).

**Branch Offices**  
 Ariz., Phoenix—1017 No. 22nd Ave. AL 2-5371  
 Calif., South San Francisco—326 Shaw Rd. PL 6-3155; PL 6-3156  
 Calif., West Covina—1850 E. Linda Vista St.  
 Ore., Portland—3133 N.E. 87th Pl. Phone 3-8550

**Representatives**  
 Ariz., Phoenix—State Tractor & Equipment Co., 407 So. 17th Ave. AL 2-1731  
 Ariz., Tucson—State Tractor & Equipment Co., 1202 No. Main St. Phone 4-2335  
 Calif., Fresno—Geo. M. Philpott Co., Inc., 2376 So. Railroad Ave. Phone 6-9843  
 Calif., Oakland—Geo. M. Philpott Co., Inc., 2928 Poplar St. GL 2-0458  
 Calif., Puente—Geo. M. Philpott Co., Inc., 125 No. Vineland. ED 6-9096  
 Calif., Sacramento—Geo. M. Philpott Co., Inc., 6260 Folsom Blvd. GL 2-2641  
 Calif., San Francisco—Geo. M. Philpott Co., Inc., 1060 Bryant St. HE 1-5475  
 Colo., Denver—Western Machinery Co., 2400 W. Seventh Ave. TA 5-7151  
 Colo., Grand Junction—Western Machinery Co.  
 N. Mex., Albuquerque—M & F Equipment Co., 824 Arno St., N.E. Phone 3-3793  
 Ore., Eugene—Western Equipment Co., 1360 W. First Ave. EU 4-4265  
 Ore., Portland—Western Equipment Co., 2244 N.W. Savier St. CA 8-4128  
 Wash., Seattle—Star Machinery Co., 241 Lander St. EL 0760  
 Wash., Spokane—Star Machinery Co., E. 415 Sprague Ave. RI 6121  
 Wyo., Casper—Moss Equipment & Supply Co., 3100 E. Yellowstone. Phone 2-4547

**MARLOW PUMPS, DIV. OF BELL & GOSSETT CO., P. O. Box 200, Mid-**  
 land Park, N. J.

Pumps (liquid handling).

**Representative**  
 Distributors located in all major Western cities.



## MARTIN - MID-WEST

**MARTIN BROS. CONTAINER & TIMBER PRODUCTS CORP., THE,**  
39 Blucher St., Toledo, Ohio  
Wirebound shipping containers and wood boxes.

See advertisement on back cover

*West Coast Plants*  
Calif., Compton—2346 E. Del Amo Blvd. NE 6-2363  
Calif., Whittier—11655 E. Washington Blvd. OX 3-7745  
Ore., Oakland—P. O. Box 698. Phone 2212  
Ore., Sutherlin—P. O. Box 698 (Oakland, Ore.)  
*Sales Branches*  
Calif., San Francisco—Edw. E. Johnson, 100 Bush St., Room 1414. SU 1-2260  
Calif., San Jose—R. G. Holland, 1273 Malone Rd. CY 4-4177  
Calif., Whittier—J. McLoughlin, 11655 E. Washington Blvd. OX 3-7745  
Ore., Oakland—P. O. Box 698. Phone 2212

**MARTIN-DECKER CORP., 3431**  
Cherry Ave., Long Beach 7, Calif.  
NE 6-2577

Scales (lift truck, crane weight indicator, hook, tensionmeter).  
*Representatives*  
Calif., Los Angeles—Hoist Specialties, Inc., 429 So. Western Ave. DU 8-2463  
Calif., San Diego—Winn Supply Co., 256 Seventh Ave. BE 3-3106  
Ore., Portland—Air-Mac, Inc., of Oregon, 1111 S.E. Grand Ave. BE 4-6524  
Utah, Salt Lake City—Arnold Machinery Co., Inc., 433 W. Second St. Phone 22-5631  
Wash., Seattle—Air-Mac, Inc., of Washington, 3838 Fourth Ave. So. MU 3388

**MASONITE CORP., 111 W. Wash-**  
ington St., Chicago 2, Ill.

Bins, Boxes (tote), Chutes, Pallets, Partitions, Tables (conveying, elevating), Workbench Tops.  
*Branches*  
Calif., Los Angeles—1577 Rio Vista. AN 8-7163  
Calif., San Francisco, 111 Sutter St., YU 6-3696  
*Representatives*  
Calif., Pasadena—J. P. Tartaglione, 940 Hastings Ranch Dr., CU 5-2520  
Calif., Pedro Valley—A. J. Rieden, Sea Cliff. EL 9-0867  
Calif., Whittier—R. Greenshields, 1244 E. Mar Vista St. OX 3-3809  
Wash., Bellevue—J. J. O'Brien, 10808 S. E. 25th Pl. GI 4651

**MATHEWS CONVEYER CO., WEST**  
COAST, 901 County Rd., San Carlos, Calif.

Belt (conveyor), Conveyors (apron, automatic, bag and bale, belt, chain or link, continuous flow, drag, flight, foundry, gravity roller, live roller, overhead, pallet, portable, skate, slot, trolley, vertical, special), Elevators (barrel, package), Pallet loaders, Rollers (conveyor), Tables (conveying) Trolley, Trucks (dolly), Wheels (conveyor).

See advertisement on page 58

*Branch Office*  
Calif., Los Angeles—5527 Sunset Blvd. HO 9-1678  
*Representatives*  
Colo., Denver—Hack Engineering Co., 124 Wazee Market. TA 5-5248  
Ore., Portland—A. A. Schuler Co., 1128 S.W. Market St. CA 3-7901  
Utah, Salt Lake City—Industrial Supply Co., 131 Social Hall Ave. EM 3-6727  
Wash., Seattle—H. W. Wylie Co., 2615 Western Ave. SE 6177

**MAXI CORP., P. O. Box 3129 Ter-**  
minal Annex, Los Angeles 54, Calif.  
Crane carriers (self-propelled).

*Representatives*  
(No authorized dealers—sold through all equipment dealers and distributors who handle a crane and shovel account)

**MAY-FRAN ENGINEERING, INC.,**  
1728 Clarkstone Road, Cleveland  
Belt (conveyor, fabric, steel), Conveyors (apron, belt, portable, steel belt).

See advertisement on page 167

*Representative*  
Calif., South Gate—Cost Reduction Equipment Co., 5200 Chakemco St. LO 7-2487

**MECHANICAL HANDLING SYSTEMS, INC., 4600 Nancy Ave., Detroit**

Conveyors (apron, automatic, bag and bale, belt, bucket, chain or link, continuous flow, drag, flight, foundry, gravity roller, live roller, overhead, pallet, pneumatic, portable, screw, skate, slot, trolley, vertical, special and other), Elevators (barrel, package, belt, bucket, continuous flow), Racks (pallet, storage, other), Wheels (conveyor).

*Representative*  
Calif., Gardena—Alden Equipment Co., 1449 W. Rosecrans. DA 9-6341

**MEFCO SALES & SERVICE CORP.,**  
131 No. Fifth Ave., Arcadia, Calif.

Crane and hoist lowering and hoisting controls.

**MERCURY INDUSTRIES, INC., 365**  
Broadway, Hillsdale, N. J.

Conveyors (apron, belt, chain or link, continuous flow, flight, portable, vertical), Pulleys (conveyor, sanitized), Rollers (conveyor, coated).

*Representatives*  
Calif., Los Angeles—W. T. Billard, Inc., 734 E. Third St.  
Calif., Los Angeles—John W. Bell, 601 So. Vermont Ave.  
Calif., Oakland—Currier Co., 710 73rd Ave.  
Calif., Riverside—Food Machinery & Chemical Corp., 3075 14th St.  
Calif., San Francisco—Acme Equipment Co., 840 Harrison St.  
Calif., San Francisco—F. J. Wentz Sales Co., 937 Howard St.  
Colo., Denver—Colorado Industrial Supply Co., 1620 Wazee St.  
Colo., Denver—Murray Sales Co., Wazee Market  
Colo., Denver—Patten Engineering Co., 1732 Blake St.  
Ore., Portland—F. E. Bennett Co., 426 N. W. 6th Ave.  
Utah, Ogden—Hornley Co., P. O. Box 801  
Wash., Seattle—Murry Jacobs Co., 527 First Ave. So.

**MERCURY MFG. CO., 4044 So. Hal-**  
sted St., Chicago 9, Ill.

Tractors (electric warehouse, gasoline warehouse), Trailers (factory and warehouse), Trucks (dolly, electric fork, hand industrial, electric forklift), Wheels (trailer).

*Representatives*  
Calif., Los Angeles—McKinley Equipment Co., 1557 Esperanza St. AN 9-0567  
Calif., San Francisco—Hamerslag Equipment Co., 110 Freeway Blvd. JU 6-1789  
Colo., Denver—Plant Equipment Co., 1400 Market St. AL 5413  
Wash., Seattle—Charles Industrial Sales Co., 5201 First Ave. So. LA 6010

**METZGAR CONVEYOR CO., 412**  
Douglas St., N. W., Grand Rapids 4, Mich.

Conveyors (apron, bag, bale, belt, chain or link, gravity roller, live roller, portable, skate, nylon wheel, midge wheel and roller, nylon bearing roller).

*Representatives*  
Calif., Los Angeles—Shipping Room Supply Co., 1547 Estudillo Ave. AN 1-2194  
Calif., Oakland—Ed. M. Vallejo Co., 3907 Lyon Ave. KE 2-4564  
Calif., San Diego—General Industrial Supply Co., 1115 "P" St.  
Ore., Portland—F. E. Bennett Co., 426 N. W. Sixth St. AT 2321  
Wash., Seattle—Materials Handling Equipment Co., 2963 First St. SE 0997  
Wash., Spokane—Standard Cycle & Supply, 1511 E. Sprague Ave. LA 1321

**M-H STANDARD CORP., 517 Com-**  
monipaw Ave., Jersey City 4, N. J.

Conveyors (apron, automatic, belt, bucket, chain or link, drag, flight, live roller, overhead, portable, screw, slot), Elevators (belt, bucket), Racks (pallet, storage, gravity storage), Tables (conveying).

*Representatives*  
Calif., Los Angeles—Modern Material Handling Equipment Co., 1738 Griffin  
Calif., San Francisco—Western Industrial Equipment Co., 420 Market  
Colo., Denver—Murray Sales Co., 16 Wazee Market  
Ore., Portland—F. E. Bennett Co., 426 N.W. Sixth Ave.

**MID-STATES GUMMED PAPER CO.,**  
6850 So. Harlem Ave., Bedford  
Park, Argo P. O. Ill.

Tape (gummed, sealing, filament, reinforced).  
*Branch Office*  
Calif., Los Angeles—6023 So. Garfield Ave. RA 3-6641

*Representatives*  
Calif., Beverly Hills—Noland Paper Co., Inc., 9268 W. Third St.  
Calif., Burbank—De Hater Paper Co., Inc., 640 So. Flower St.  
Calif., Burbank—Valley Paper & Chemical Co., Inc., 2706 W. Burbank Blvd.  
Calif., Glendale—Yates Products, 703 W. Ivy St.  
Calif., Highland—Richmond Paper Co., Pacific and Church Sts.  
Calif., Huntington Park—Tharco Containers, 2519 E. Randolph St.  
Calif., Los Angeles 33—Anderson-Winn Paper Co., 1037 No. Orange Dr.  
Calif., Los Angeles—Banner Paper & Twine Co., 7421 Avalon Blvd.  
Calif., Los Angeles 44—Cal-State Distributors, 646 W. Florence Ave.  
Calif., Los Angeles 58—Carpenter Paper Co., 3100 E. 44th St.  
Calif., Los Angeles—Container Kraft Carton & Paper Supply Co., 801 E. 61st St.  
Calif., Los Angeles 33—Frick Paper Products Co., 1800 Marengo St.  
Calif., Los Angeles 28—Gabriel Container Co., 4300 Union Pacific Ave.  
Calif., Los Angeles 46—Hollywood Paper Co., 8431 Melrose Pl.  
Calif., Los Angeles 21—L. C. Hyman Paper Co., 1855 Industrial St.  
Calif., Los Angeles 21—Ideal Paper Co., 1362 E. Wholesale St.  
Calif., Los Angeles 26—B. W. Paper Co., 5487 San Fernando Rd. W.  
Calif., Los Angeles 22—Ingram Paper Co., 6541 E. Washington Blvd.  
Calif., Los Angeles 22—L. A. Supply Co., 2111 So. Atlantic Blvd.  
Calif., Los Angeles 47—Metropolitan Paper Co., 1900-24 W. 62nd St.  
Calif., Los Angeles 11—The Nehms Co., 3000 So. Central Ave.  
Calif., Los Angeles—Package Engineering Co., 735 Decatur St.  
Calif., Los Angeles 35—Yarborough Sales Co., 1133 So. La Cienega Blvd.  
Calif., Oakland 7—Union Paper Co., 378 Fourth St.  
Calif., Pasadena 2—Industrial Sales Co., 9 W. State St.  
Calif., Pasadena—Pasadena Paper Products, 2623 E. Foothill Blvd.  
Calif., Pomona—Carr Paper Co., 1190 So. Carey Ave.  
Calif., Richmond—Eastman Tag & Label Co., 345 Collins Ave.  
Calif., Rosemead—San Gabriel Valley Supply Co., 9736 E. Valley Blvd.  
Calif., San Diego 12—San Diego Paper Co., India at F St.  
Calif., San Francisco 7—Bonestell & Co., 164 Townsend St.  
Calif., San Francisco 7—Carpenter Paper Co., 300 Brannan St.  
Calif., San Francisco 11—Commercial Paper Corp., 48 Jackson St.  
Calif., Santa Ana—Blower Paper Co., 1055 E. First St.  
Calif., Santa Cruz—Monterey Bay Paper Co., 2112 Chanticleer Ave.  
Calif., Santa Monica—Fleischer Paper Co., 2906-B Colorado Ave.  
Calif., South Gate—Menke Marking Device, 4514 Firestone Blvd.  
Calif., Van Nuys—Acteson Paper Co., 15124 Oxnard St.  
Calif., Visalia—Caekey Paper Co., P. O. Box 147  
Ore., Portland 9—Carter, Rice & Co. of Oregon, 735 N.W. 16th St.  
Wash., Seattle 1—Carter, Rice & Co., 2905 Third Ave.  
Wash., Spokane—Spokane Paper & Stationery Co., 152 So. Jefferson Ave.  
Wash., Tacoma 1—Allied Paper Co., 2215 Center St.  
Wash., Yakima—Carter, Rice & Co., 514 So. Second Ave.

**MID-WEST WIRE PRODUCTS CO.,**  
INC., 2555 Fenkell Ave. at Linwood,  
Detroit 38, Mich.

Baskets (wire material handling "Carriers" and misc. tote bins), Material handling baskets ("Carriers" and tote bins).

*Representatives*  
Calif., Los Angeles 57—Equipment Engineering Services, 672 So. Lafayette Park Pl. DU 7-8521  
Colo., Denver 9—C.F.L. Co., 375 So. Pearl St. SP 7-4381  
Colo., Denver 10—Urban M. Lodge, 2689 So. Jackson St. AL 5-6127



## MILWAUKEE TRUCK CO., 250 No. 12th St., Milwaukee 3, Wis.

Trucks (dolly, factory and warehouse, hand).

**Representatives**  
 Calif., San Francisco 22—Phil Payton, 1790 34th St. MO 4-5066  
 Calif., Santa Fe Springs—James Boal, 11725 Clarkman Ave. TO 3-0960  
 Hawaii, Honolulu—Alexander Assoc., 1272-A, So. King St.  
 Utah, Salt Lake City—J. H. Nicodemus, 230 So. 4th St. W. EM 3-5587  
 Wash., Seattle 1—Wm. A. Matzke, Terminal Sales Bldg. SE 4257

## MITCHELL INDUSTRIAL TIRE CO., INC., 1400 E. 40th St. (P. O. Box 468), Chattanooga, Tenn.

Tires, laminated (industrial truck and trailer).

**Representative**  
 Calif., Los Angeles—Boman Co., 3316 E. Olympic Blvd. AN 9-0761

## MOBILE SWEEPER DIV., see CONVEYOR CO.

## MOFFETT ENGINEERING CO., 579 Cleveland Ave., Albany 6, Calif. LA 5-4916

Cranes (gantry, hand power, jib, pillar, swing, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, 1 beam overhead), Hoists (air, bucket, chain, crane, derrick, drum, electric, hand, monorail, portable, skip, tracking, other), Loaders,

## MONARCH RUBBER CO., 50 Lincoln Park, Hartsville, Ohio

Tires.

See advertisement on page 3

**Branch**  
 Calif., Hayward—1035 Bartlett St. LU 2-2309  
**Representatives**  
 Ariz., Phoenix—Robert H. Braun Co., 2308 So. 11th Ave.  
 Calif., Fresno—Robert H. Braun Co., 1905 Mary St.  
 Calif., Los Angeles—Robert H. Braun Co., 5519 Jilison  
 Calif., Oakland—Cochran & Celli Tire Department, 2344 E. Twelfth St.  
 Calif., Sacramento—J. R. Rolfe Co., 3200 "J" St.  
 Calif., San Diego—Robert H. Braun Co., 2208 Imperial  
 Calif., San Jose—Harold Johnson, 211 No. Montgomery  
 Colo., Denver—Lift Truck Service Co., 2855 W. Eighth Ave.  
 Ore., Portland—Robert Dodd Co., 5210 S.W. Corbett  
 Utah, Salt Lake City—Foulger Equipment Co., 1361 So. Second, W.  
 Wash., Seattle—Preston Faller Co., 1921 Minor Ave.  
 Wash., Spokane—Preston Faller Co., E. 4324 Trent  
 Wash., Yakima—Preston Faller Co., 108 So. Fourth Ave.

## MORSE CHAIN CO., Ithaca, N. Y.

**Representatives**  
 Ariz., Phoenix—Edward D. Maltby Co., Inc., 424 W. Jefferson St. AL 4-9227  
 Calif., Long Beach—Edward D. Maltby Co., Inc., 2041 W. Anaheim HE 7-4541  
 Calif., Los Angeles—Edward D. Maltby Co., Inc., 1718 So. Flower RI 7-9191  
 Calif., Los Angeles—J. W. Minder Chain & Gear Co., 6011 So. Central Ave. AD 3-7221  
 Calif., Maywood—Edward D. Maltby Co., Inc., 4035 E. 52nd St. LO 2-5354  
 Calif., San Diego—Edward D. Maltby Co., Inc., 745 15th St. BE 3-7278  
 Calif., San Francisco—Adam-Hill Co., 244-246 Ninth St. MA 4137  
 Ore., Portland—J. W. Minder Chain & Gear Co., 307 S.E. Hawthorne Blvd. EM 1131  
 Ore., Portland—Power Transmission Products, 1107 N.W. 14th Ave. CA 7-1271

## MOTO-TRUC CO., THE, 1953 E. 59th St., Cleveland 3, Ohio

Complete line of battery-powered walkie and small riding type high-lift and low-lift industrial trucks and tractors.

See advertisement on page 89

**Representatives**  
 Calif., Los Angeles—Glenn A. Harshbarger Co., 588 Mateo St. MI 7491  
 Calif., San Francisco—Elder & Co., 333 Seventh St. UN 1-5480  
 Colo., Denver—Landes, Zachary & Peterson Co., 275 Kalamath. MA 3-6203  
 Ore., Portland—Oregon Handling Equipment Co., 2949 N.W. St. Helens. CA 8-4196  
 Wash., Seattle—Mechanical Handling Co., 1401 W. Garfield. GA 0200

## MULTAFRAME OF CALIFORNIA, INC., 7400 Laurel Canyon Blvd., North Hollywood, Calif. ST 7-3367

Bins, Boxes, (tote), Carts (hand, push), Pallets, Racks (pallet, storage, other), Tables (portable, other), Trucks (factory and warehouse), Shelving (steel).

## NALPAK CORP., 1130 E. Florence Ave., Los Angeles 1, Calif.

Casters, Trucks (bag, barrel, drum, dolly, factory and warehouse, hand, hand-mechanical and jack-type lift), Wheels (general industrial, hand truck, rubber tired, tractor, trailer).

**Branch Office**  
 Calif., San Francisco—2707 39th Ave., LO 4-7416

**Representatives**  
 Ariz., Phoenix—Luna Corp., 447 W. Jefferson  
 Calif., Alhambra—Geo. M. Prescott Co., 825 So. Fremont. FA 1-2100  
 Calif., Los Angeles—M. E. Canfield Co., 419 E. Third St. MA 6606  
 Calif., Los Angeles—Yaeger & Sons, 1512 E. Olympic Blvd. TR 3576

## NASHUA PACKAGE SEALING DIV., NASHUA CORP., 44 Franklin St., Nashua, N. H.

Gummed tape dispensers (electric and manual), Gummed sealing tape (plain, printed, glass reinforced).

**Branch Offices**  
 Ariz., Phoenix—M. Markovitz, 523 E. Osborn Rd. AM 5-3451  
 Calif., Los Angeles—J. E. Ross, 1709 W. Eighth St. DU 5-4189  
 Calif., Los Angeles—J. W. Valentine, 1709 W. Eighth St. DU 5-4189  
 Calif., Los Angeles—A. Zakraysek, 1709 W. Eighth St. DU 5-4189  
 Calif., Los Gatos—R. W. Waller, 16880 Fillmer Ave. EL 4-1019  
 Calif., Placentia—T. L. Terry, 247 Wilson Ave. LA 5-1570  
 Calif., San Francisco—J. N. Brigham, 1355 Market St. UN 1-0720  
 Calif., San Francisco—M. L. Nathan, 1355 Market St. UN 1-0720  
 Calif., San Francisco—H. L. Rosen, 1355 Market St. UN 1-0720  
 Colo., Denver—R. DeYoung, 2517 E. 26th Ave. FL 5-4924  
 Colo., Denver—C. S. Graves, 1280 Humboldt St. KE 4-4593  
 Ore., Portland—B. E. Chinn, 411 Weatherly Bldg. BE 4-2372  
 Utah, Salt Lake City—J. W. Fitch, 1579 E. 3900 So. CR 7-6369  
 Wash., Seattle—M. J. Malmstrom, Suite 101, Jones Bldg. SE 6860

## NATIONAL SCREW & MFG. CO., see CHESTER HOIST DIV.

## NATIONAL VULCANIZED FIBRE CO., P. O. Box 311, Wilmington 99, Del.

Barrels ( fibre), Baskets ( fibre), Boxes shipping ( fibre), Boxes, tote ( fibre), Trucks (dolly, factory and warehouse), Trays ( fibre).

**Branch Offices**  
 Calif., Los Angeles—2216 So. Garfield. RA 3-3129  
 Calif., Atherton—3351 El Camino Real. EM 6-2329  
**Representatives**  
 Colo., Denver—George Hamburger, 1258 Pearl St.  
 Wash., Seattle—John J. Witherow, 4001 Whitman Ave. ME 7298

## NEW LONDON ENGINEERING CO., 1700 Division St., New London, Wis.

Conveyors (bag and bale, belt, foundry, portable, special and other), Pulleys (conveyor).

**Representatives**  
 Ariz., Phoenix—Lee Redman Equipment Co., 610 So. 19th St.  
 Ariz., Phoenix—O. S. Stapley Co., 723 Grand Ave.  
 Ariz., Phoenix—Western Machinery Co., 124 E. Buchanan St.  
 Calif., Los Angeles—Modern Materials Handling Equipment, 1733 Griffin St. CA 5-0422  
 Calif., Los Angeles—Smith-Booth-Usher Co., 2001 Santa Fe Ave.  
 Calif., Pomona—Keville Industrial Service, 1590 Ganesha Pl.  
 Calif., Santa Clara—Cole Equipment & Supply Co., 956 Main St.  
 Colo., Denver—Gunderson-Taylor Co., 1237 Shoshone  
 Colo., Denver—Western Machinery Co., 1004 Speer Blvd.  
 Colo., Grand Junction—S & M Supply Co., 785 Fourth Ave.  
 Idaho, Boise—Engineering Sales Service, 410 Capitol Blvd.  
 Idaho, Boise—Western Equipment Co.  
 Nev., Las Vegas—Inland Service & Supply  
 N. Mex., Albuquerque—Contractors Equipment & Supply Co., 708 Broadway N.E.  
 Ore., Portland—Air-Mac, Inc., 1435 S. E. Union Ave.  
 Ore., Portland—Contractors Equipment Corp. P. O. Box 2191  
 Ore., Portland—McMahon Bros., Inc., 337 Pittock Block  
 Utah, Salt Lake City—Modern Equipment Co., 52 W. Second St.  
 Utah, Salt Lake City—Equipment Supply Co., 15 Post Office Pl.  
 Wash., Seattle—Glenn Carrington & Co., 91 Columbia St.

## NEW YORK AIR BRAKE CO., see KINNEY MANUFACTURING DIV.

## NEW YORK BELTING & PACKING CO., 1 Market St., Passaic, N. J.

Belting (conveyor, elevator, endless, other), Conveyors (belt), Elevators (belt), Slings (belt), Hose (rubber).

**Branches**  
 Calif., Los Angeles—4559 E. Sheila St. AN 9-0781  
 Calif., San Francisco—6025 Third St. MI 8-3424  
**Representatives**  
 Ariz., Phoenix—Garrett Supply Co., 130 W. Madison Ave. AL 8-5701  
 Calif., Fresno—Central Supply Co., 426 M St. Phone 8-4765  
 Calif., Los Angeles—Degen-Fiege Co., 4559 E. Sheila St. AN 9-0781  
 Calif., Oakland—Viking Supply Co., 1276 W. Grand Ave. HI 4-6984  
 Colo., Denver—Hendrie & Bolthoff Co., 1635 17th St. KE 4-4111  
 Ore., Klamath Falls—Moty & Van Dyke, Inc., 638 Klamath Ave. Phone 4141  
 Ore., Portland—Woodbury & Co., Swan Island. BU 5-4611  
 Wash., Aberdeen—Mill & Logging Supply Co., 313 So. "H" St. Phone 291

## NICHOLS CONVEYOR & ENGINEERING CO., INC., 2646 Downey Rd., Los Angeles 23, Calif. AN 3-3809 and AN 3-7874

Conveyors (belt, bucket), Cranes (jib), Elevators (belt, bucket, other), Hoists (hydraulic).

## NOBLE CO., 1860 Seventh St., Oakland 20, Calif. TE 2-5785

Cranes (gantry, double beam overhead, electric traveling overhead, foundry overhead, "i" beam overhead, monorail overhead), Automatic plate handlers (gantry, jibbed pivotal, radial, monorail).

**Branch Office**  
 Calif., El Segundo—218 Richmond St. EA 2-4518  
 Wash., Seattle—513 First Ave., No. MU 4878

## NORTHERN ENGINEERING WORKS, 210 Chene St., Detroit 7, Mich.

Cranes (overhead electric traveling), Hoists (electric).

**Representative**  
 Calif., Los Angeles—Pacifi Coast Industrial Equipment, P. O. Box 38008. WE 8-6201



## NORTHWEST — PACIFIC PUMPING

### NORTHWEST ENGINEERING CO., 135 So. LaSalle St., Chicago 3, Ill. Cranes (truck and tractor yard).

#### Branch Offices

Calif., San Francisco—255 10th St. HE 1-5060  
Calif., Vernon—3707 Santa Fe Ave. LU 7-2196  
Wash., Seattle—1234 Sixth Ave., So. SE 2280

#### Representatives

Alaska, Anchorage—Bashaw Equipment Co.  
Ariz., Phoenix—Superior Equipment Co., 2402  
So. 19th Ave.  
Calif., Eureka—Brizard-Mathews Machinery  
Co.  
Calif., San Diego—Earthmovers Equipment &  
Supply, Inc., 6029 Fairmount Extension  
Calif., Redding—Gerlinger Steel & Supply Co.,  
1527 Sacramento  
Colo., Denver—Power Equipment Co., 3440  
Brighton Blvd.  
Idaho, Idaho Falls—Arnold Machinery Co., Inc.,  
1625 W. Broadway  
Mont., Billings—Industrial Equipment Co., 415  
No. 27th St.  
Mont., Great Falls—Normont Equipment Co.,  
1157 Smelter Ave.  
Nev., Reno—Sierra Machinery Co., Inc., 307  
Morrill Ave.  
N. Mex., Albuquerque—Lively Equipment Co.,  
2601 Fourth St., N.W.  
Ore., Medford—Cul-Ore Machinery Co., Inc.,  
944 So. Central Ave.  
Ore., Portland—Balzer Machinery Co., 2136  
S.E. Eighth Ave.  
Utah, Salt Lake City—Arnold Machinery Co.,  
Inc., 433 W. Second St.  
Wash., Spokane—General Machinery Co., E.  
3500 Riverside Ave.  
Wash., Wenatchee—Mid-State Truck & Ma-  
chinery Co., 313 No. Mission St.  
Wyo., Casper—Kereml Tractor & Equipment  
Co., 414 So. Elm St.  
Wyo., Cheyenne—Kereml Tractor & Equipment  
Co., 703 W. 17th St.

### NUTTING TRUCK & CASTER CO., 1201 W. Division St., Faribault, Minn.

Carts (hand, push), Casters, Trailers (factory and  
warehouse), Trucks (bag, barrel, drum, box type,  
die handling, dolly, factory and warehouse, hand,  
handling, tow line, paper roll, sheet handling,  
skid), Wheels (hand truck, rubber tired, trailer).

See advertisement on page 166

#### Representatives

Ariz., Phoenix—L. J. Clarke & Co., 18 E. Lin-  
coln St. AL 4-1754  
Ariz., Tucson—L. J. Clarke & Co., 2625 No.  
First Ave. Phone 4-6233  
Calif., Los Angeles—H. Stewart & Associates,  
1547 Estudillo Ave. AN 1-2194  
Calif., Oakland—E. C. Buehrer Associates, 253  
Fourth St. TE 6-2082  
Ore., Portland—R. E. Bennett Co., 426 N. W.  
Sixth Ave. CA 8-2321  
Utah, Salt Lake City—Equipment Supply Co., 16  
Post Office Pl. Phone 3-9074  
Wash., Seattle—Secord Sales Co., 95 Connecti-  
cut St. MA 0737  
Wash., Spokane—H. H. McVeigh, W. 310 First  
Ave. RI 5927

### O'DONNELL, P. F., CO., 2298 Jer- rold Ave., San Francisco 24, Calif.

Automatic loaders and conveyor line markers for  
marking shipping cartons, Products, etc.

### OHIO TRAMRAIL DIV., THE FORKER CORP., 2044 Random Rd., Clevel- land 6, Ohio

Cranes (gantry, hand power, jib, pillar, swing,  
bracket, double beam overhead, electric and elec-  
tric traveling overhead, foundry overhead, hand  
power traveling overhead, I beam overhead, mono-  
rail overhead), Hoists (air, chain, crane, electric,  
hand, monorail, traveling), Scales (monorail),  
Trolleys.

#### Representatives

Calif., San Francisco—Stryco Mfg. Co., 470  
Natoma St. SU 1-8310  
Colo., Denver—Ohio Tramrail Denver Co., 2533  
19th St. GL 5-6321

### OLIVER CORP., 400 W. Madison St., Chicago, Ill.

Conveyors (apron, automatic, belt, chain or link,  
continuous flow, drag, gravity roller, live roller,

portable), Cranes (yard, truck tractor), Rollers (con-  
veyor), Tractors (diesel, gasoline warehouse), Trucks  
(diesel fork, gasoline fork).

#### Branches

Calif., Los Angeles—4380 District Blvd. LU  
7-3297  
Calif., Oakland—1066 47th Ave. KE 2-2511  
Ore., Portland—130 S.E. Morrison St. EA 5124

#### Representatives

Alaska, Anchorage—Bashaw Equipment Co.,  
P. O. Box 1621  
Alaska, Fairbanks—Arctic Equipment & Ma-  
chinery Co., Inc., 707 Steese Hwy.  
Ariz., Phoenix—Arizona Equipment Sales, Inc.,  
2812 Grand Ave.  
Calif., Bakersfield—Motor Truck Sales & Serv-  
ice, 115 Union Ave.  
Calif., Colton—Condosta Tractor Co., P. O.  
Box 351  
Calif., Cotati—Tractor Specialties Co., P. O.  
Box 216  
Calif., Eureka—Gustafson Tractor Co., 109 W.  
Fourth St.  
Calif., Lancaster—Robertson Implement Co.,  
634 W. Ave. 1  
Calif., Los Angeles—Le-Roi Rix Machinery  
Co., 6403 E. Slauson Ave.  
Calif., Porterville—Farmers Tractor & Equip-  
ment Co., 1475 So. Main St.  
Calif., Napa—Warner-Ritz Tractor & Equip-  
ment Co., 2032 Napa-Vallejo Hwy.  
Calif., Redding—Lowey Equipment Co., P. O.  
Box 1027  
Calif., Sacramento—Flood Equipment Co., 2200  
Alhambra  
Calif., Salinas—Ashton Implement Co., 1280  
No. Main St.  
Calif., San Diego—Crofton Truck & Tractor  
Co., Eighth Ave. and Harbor Dr.  
Calif., San Jose—MFD Distributors, Inc., 1650  
So. First St.  
Calif., San Leandro—MFD, Inc., P. O. Box  
3205  
Calif., Stockton—H & M Tractor Co., 620 So.  
Wilson Way  
Calif., Tustin—Schneider Tractor Co., 610 W.  
First St.  
Idaho, Boise—Engineering Sales Service, Inc.,  
410 Capitol Blvd.  
Nev., Whitney—Western Tractor Sales, P. O.  
Box 116  
Mont., Billings—Caird Engineering Works,  
4005 W. Montana Ave.  
Mont., Great Falls—Caird Engineering Works,  
P. O. Box 266  
Mont., Helena—Caird Engineering Works,  
P. O. Box 837  
Ore., Eugene—Loggers & Contractors Machin-  
ery Co., 540 Fillmore St.  
Ore., Portland—Oregon Tractor & Equipment  
Co., 7606 N.E. Union St.  
Utah, Salt Lake City—Arnold Machinery Co.,  
433 W. Second St.  
Wash., Chehalis—Buck & Sons Farm Equip-  
ment Co., 2155 Market St.  
Wash., Spokane—Inland Diesel & Machinery  
Co., E 7 Third Ave.  
Wash., Tacoma—Buck & Sons Tractor & Imple-  
ment Co., 114 E. Puyallup Ave.  
Wash., Walla Walla—Melcher-Ray Machinery  
Co., 1014 So. Ninth St.

### OLIVER CORP. see also A. B. FAR- QUHAR DIV.

### OLSON, SAMUEL, MFG. CO., INC., 2418 Bloomingdale Ave., Chicago 47, Ill.

Conveyors (belt, gravity roller, live roller, over-  
head, portable).

#### Representative

Calif., San Francisco—P. E. Lenfesty, 115  
New Montgomery St. YU 6-1274

### ORCHARD PAPER CO., 3914 No. Union Blvd., St. Louis 15, Mo.

Papers for packaging and rust prevention (VPI).

#### Branch Offices

Calif., Los Angeles—4717 District Blvd. LU  
8-9251  
Calif., San Francisco—24 California. EX 2-3833  
Ore., Portland—2326 N.E. 23rd Ave. AT 4-4797

### ORTON CRANE & SHOVEL CO., 608 So. Dearborn St., Chicago 5, Ill.

Cranes (charging and drawing, gantry, hand power,  
jib, pillar, swing, bracket, double beam overhead,  
electric and electric traveling overhead, foundry  
overhead, hand power overhead, traveling, "I"  
beam overhead, monorail overhead, truck and  
tractor yard).

#### Representatives

Calif., San Francisco—Sunset Equipment Co.,  
2222 19th Ave.

Utah, Salt Lake City—The Lang Co., Inc., 267  
W. South  
Wash., Seattle—American Equipment Co.,  
2930 So. First Ave.

### OSTER MFG. CO., THE, 1340 E. 289th St., Wickliffe, Ohio

Hand and battery operated portable lifts.

#### Branch Offices

Calif., Burlingame—1568 Alturas Dr. DI  
4-6438  
Calif., Glendora—534 No. Ranch Lane. ED  
5-4816  
Colo., Denver—1248 Ursula St. EM 6-8442

#### Representatives

Calif., Los Angeles—M. E. Canfield Co., 419  
E. Third St.  
Calif., Los Angeles—Harron, Rickard & Mc-  
Cone Co., 3850 Santa Fe Ave. LO 5-8361  
Calif., Los Angeles—Stanley E. Morris Co.,  
5584 Alhambra Ave. CA 1-5148  
Calif., Los Angeles—Seaboard Machinery Co.,  
3213 E. Olympic Blvd. AN 3-4188  
Calif., Los Angeles—W. F. Wolf Machinery  
Co., 2910 Santa Fe Ave. LO 5-6236  
Calif., San Diego—Western Metal Supply Co.,  
215 Seventh St.  
Calif., San Francisco—Harron, Rickard & Mc-  
Cone Co., 2070 Bryant St. AT 2-2202  
Calif., Stockton—Hickinbotham Bros., Ltd., 536  
So. Aurora St. HO 6-9541  
Colo., Denver—Lander, Zachary & Peterson,  
275 Kalamath St. MA 3-6203  
Ore., Portland—The Portland Machinery Co.,  
208 S.W. First Ave. CA 8-9633  
Wash., Seattle—Star Machinery Co., 241 Lan-  
der St., MA M.T.D.

### OTIS ELEVATOR CO., see BAKER- RAULANG CO.

### OTTAWA STEEL DIV., see L. A. YOUNG SPRING & WIRE CORP.

### PACIFIC CAR & FOUNDRY CO., Fourth and Factory, Renton, Wash. OL 4511

Carts (log), Cranes (tractor, booms), Hoists (tractor,  
drum), Winches (tractor), Rigging.

#### Representatives

(Distributed through Allis-Chalmers, Interna-  
tional, Oliver Crawler, John Deere, Terracra,  
Euclid, Eimco and other dealers.)

### PACIFIC COAST ENGINEERING CO., Oak and Clement St., Alameda, Calif.

Cranes (gantry, electric traveling overhead, foundry  
overhead), Hoists (electric, hydraulic), Trucks (dump-  
ers), Dredges, Penstock pipe, Trashrakes, Trashrakes,  
Rotary kilns, Dam gates.

#### Branch Office

Calif., Alameda—Oak St. at Clement. LA  
2-6100

#### Representative

Calif., Pasadena—Jacobs Engineering Co., 774  
E. Green St. RY 1-9373

### PACIFIC COAST INDUSTRIAL EQUIP- MENT CORP., P. O. Box 36008, Los Angeles 36, Calif. WE 8-6201

Spray washing machines, Spray or dip bonderizing  
equipment, Industrial carriers (special trucks, dump  
hoppers, conveyors), Dryoff or paint bake ovens,  
Millwright work, Northern cranes and hoists, Acme  
wire mesh partitions, Grey Hub trolley wheels and  
complete metal finishing and processing system.

### PACIFIC PUMPING CO., 9201 San Leandro St., Oakland 3, Calif.

Pumps (centrifugal, end suction and split case, tur-  
bine type, non-clog, contractors' self-priming, pump  
and sewage, submersible, boiler feed and con-  
densate return).

#### Branch Offices

Ariz., Phoenix—7520 No. 17th Dr. WI 3-5144  
Calif., Los Angeles—5000 District Blvd. LU  
1-8131  
Colo., Denver—2963 So. Meade Ave. WE 6-0251  
Ore., Portland—526 N.W. Broadway. CA  
8-2121  
Wash., Seattle—114 W. Harrison. EL 6222  
Wash., Spokane—10510 E. 20th Ave.



## PACIFIC PUMPS — PRIME-MOVER

**PACIFIC PUMPS, INC.**, 5715 Bickett St., Huntington Park, Calif. LU 8-2203

**Pumps.**  
Branch  
Calif., San Francisco—593 Market St. GR 1-4956  
**Representatives**  
Ariz., Phoenix—Lee Redman Equipment Co., 610 So. 19th Ave. AL 8-3794  
Colo., Denver—G. M. Wallace & Co., Denham Bldg. AM 6-0386  
Utah, Salt Lake City—The Lang Co., 267 W. First So. St. DA 8-8341  
Wash., Seattle—Atlas Equipment Co., 1416 Bigelow Ave., No. MU 6232

**PACIFIC WIRE ROPE CO.**, 1840 E. 15th St., Los Angeles 21, Calif. RI 9-7511

**Slings (wire rope), Wire rope.**  
Branches  
Calif., San Francisco—681 Market St. EX 7-1372  
Ore., Portland—3615 N. W. St. Helens Rd. BE 3188

**THE PAIGE COMPANY**, 114 E. 32nd St., New York, N. Y.

**Boxes (corrugated, store flat).**  
**Representatives**  
Calif., Los Angeles—James P. Kinney Co., 6141 Telegraph Rd.  
Calif., San Francisco—Enterprise Commercial Co., 60 Pacific St.

**PAK-RAPID, INC.**, 18 Elizabeth St., W. Conshohocken, Pa.

**Packaging machinery.**  
**Representatives**  
Calif., Los Angeles—Frank Shaw Co., 654 So. Westlake Ave. DU 5-5591  
Calif., San Francisco—Ralph E. Peters Co., 420 Market St. SU 1-1379

**PALTIER CORP.**, 1701 Kentucky St., Michigan City, Ind.

**Boxes for shipping, Racks (pallet, storage, other).**  
**Representatives**  
Calif., Los Angeles—Davis Material Handling Co., 6649 Alhambra. CA 2-7192  
Calif., San Francisco—Western Industrial Equipment Co., 420 Market St. SU 1-4757

**PARAMOUNT MFG. CO.**, 1615 East Main St., Stockton 1, Calif. HO 6-8519

**Belt (chain link, conveyor, elevator, draper), Conveyors (bag, bale, belt, chain or link, continuous, flight, live roller, portable, skate), Elevators (belt, continuous flow, portable tiering), Packaging machinery, Pulleys (conveyor), Tables (conveying, portable, grading), Produce sizers, Washers.**

**Branch**  
Calif., Shafter—588 E. Lerdo. PI 6-4062  
**Representatives**  
Colo., Monte Vista—Bockhaus Mfg. Co.  
Idaho, Idaho Falls—Pacific Diamond H Bag Co.  
Idaho, Twin Falls—Pacific Diamond H Bag Co.  
Wash., Sunnyside—Paramount Sales & Service

**PENCO ENGINEERING CO.**, 25 California St., San Francisco 11, Calif. SU 1-1963

**Dock Boards, Loading ramps.**

**PENCO METAL PRODUCTS DIVISION, ALAN WOOD STEEL CO.**, Oregon Ave. and Swanson St., Philadelphia 48, Pa.

**Steel lockers, Steel storage shelving, Steel storage and wardrobe cabinets.**

**Representatives**  
Ariz., Tucson—L. J. Clarke, 2625 No. First St. Phone 4-6233  
Calif., Los Angeles—McKinley Equipment Corp., 1557 Esperanza St. AN 9-0567  
Colo., Colorado Springs—Out West Printing Co., Out West Bldg. ME 4-5501

**PETLEY, INC.**, 5424 E. Slauson Ave., Los Angeles 22, Calif.

**Benches, Bins, Boxes (tote), Lockers, Pallets, Racks (pallet, storage), Skids.**

**Branch**  
Calif., Oakland—899 73rd Ave. TR 2-7621

See advertisement on page 175

**Representatives**  
(Distributors in all principal cities)

**PHILADELPHIA CHAIN BLOCK & MFG. CO., INC.**, Mascher and Norris Sts., Philadelphia 22, Pa.

**Chains, Cranes (hand power), Hoists (chain, hand), Slings (chain), Trolleys.**

**Representatives**  
Calif., Huntington Park—Pete Miller Co., 7810 Salt Lake Ave. LU 2-2616  
Calif., San Francisco—Robert M. Taylor Co., 268 Market St. YU 2-1760  
Colo., Denver—Hahn Equipment Co., 1795 Sheridan St. BE 7-0433  
Ore., Portland—McMahon Bros., 337 Pittock Block. AT 6878  
Wash., Seattle—F. J. Crowe Co., 325 Second Ave. W. AL 8844

**PHILLIPS CONVEYOR CO.**, Memphis, Mo.

**All-aluminum, portable belt conveyors.**

**Representatives**  
Colo., Denver—Plant Equipment Co., 1863 Wazee St. AL 5413  
Idaho, Boise—G. H. White, 2008 Grace St. Phone 3-7111  
Utah, Salt Lake City—Ernest A. White, 1780 Woodside Dr. HO 176  
Wash., Seattle—Nelson Truck Equipment Co., 128 Westlake, No. MA 4044

**PITTSBURGH STEEL PRODUCTS DIV., PITTSBURGH STEEL CO.**, P. O. Box 118, Pittsburgh 30, Pa.

**Baskets (wire), Boxes for shipping (wire), Pallets, Bulkheads (railroad shipping).**

**Branches**  
Calif., Los Angeles—Suite 1118, Statler Center. MA 5-1456

**Representatives**  
Calif., San Francisco—James A. Old & Son, 171 Second St.  
Calif., Torrance—Meyer & Williams Sales, 22900 Frampton Ave.  
Utah, Salt Lake City—Utah Lumber Co., 333 W. First South St.

**POLLARD BROS. MFG. CO.**, 5504 N.W. Highway, Chicago 30, Ill.

**Hand trucks (two and four wheel), Work benches.**

**Representatives**  
Ariz., Phoenix—Pratt-Gilbert-Howe, P. O. Box 2230  
Calif., Los Angeles—McKinley Equipment Corp., 1557 Esperanza. AN 9-0567  
Calif., San Francisco—A. J. Glesener, 975 Bryant  
Wash., Spokane—Jensen-Byrd, 320 Riverside

**PORTER, H. K.**, 74 Foley St., Somerville 43, Mass.

**Cutters (strapping, wire rope).**

**Branches**  
Calif., San Francisco—24 California St. YU 2-3186  
Colo., Denver—1126 12th St.  
Ore., Portland—309 S. W. Third Ave.  
Wash., Seattle—Third Ave. and Cherry St.

**PORTER, H. K.**, also see **LESCHEN WIRE ROPE DIV.**

**PORTCO CORP.**, 1100 Terminal Sales Bldg., Portland 5, Ore.

**Pallets.**  
**Branch Office**  
Ore., Portland—1100 Terminal Sales Bldg. CA 2-9495

**POWELL PRESSED STEEL CO.**, Erie St., Hubbard, Ohio

**All steel boxes, skid platforms, box platforms, pallets, and production boxes and stands.**

See advertisement on page 24

**Representatives**  
Calif., Los Angeles—J. W. Lafferty Co., 5422 E. Washington Blvd. RA 3-5233  
Calif., San Francisco—Ira G. Perin Co., 575 Howard St. GA 1-1827  
Colo., Denver—McDonald-Hunt Scale & Supply 1540 Wazee St. AC 5651  
Ore., Portland—Air-Mac, Inc., 1485 S.E. Union Ave. FI 6524  
Utah, Salt Lake City—Equipment Supply Co., 16 Post Office Pl. Phone 3-9074  
Wash., Seattle—Air-Mac, Inc., 3888 Fourth Ave. So. MU 3888

**POWER-CURVE CONVEYOR CO.**, 2185 So. Jason St., Denver, Colo.

**Conveyors (bag and bale, portable), Elevators, Loaders (portable, self-propelled), Flatteners (bag).**

**Representative**  
Calif., Pasadena—Empire Engineering Co., 385 E. Green St. RY 1-6178  
Ore., Portland—Thurlow-Moe, Inc., 1224 S.W. Morrison. CA 8-8508  
Wash., Seattle—Thurlow-Moe, Inc., 2405 11th Ave., S.W. EL 5743  
Wash., Spokane—Thurlow-Moe, Inc., So. 125 Stevens. MA 5288

**PRESCOTT, GEO. M., CO.**, 825 So. Fremont Ave., Alhambra, Calif.

**Trucks (warehouse, dragline), Trailers, Skids, Semi-live skids.**

**Representatives**  
Ariz., Phoenix—Kistler Industrial Service, 902 So. Central AL 2-7217  
Calif., Oakland—Roll-Rite Corp., 801 Jefferson St.  
Calif., San Diego—Myers Equipment Co., 1025 11th Ave.  
Idaho, Idaho Falls—Arnold Machinery Co., 1302 W. Broadway. Phone 3672  
Ore., Portland—F. E. Bennett Co., 426 N. W. Sixth St.  
Ore., Portland—John W. Negus Co., 3005 N.E. Sandy Blvd. FT 8515  
Utah, Salt Lake City—Arnold Machinery Co., 433 W. Second So. St. Phone 22-5631  
Wash., Seattle—Masterson's Equipment Supplies, Inc., 2720 Westlake, No.

**PRESSTEEL CO.**, 9705 E. Garvey, El Monte, Calif. CU 3-1225 and GI 8-9790

**Industrial benches and tables, Boxes (portable tool tote, stacking), Stock carts, Storage cabinets (small parts), Parts for conveyor lines.**

**PRIME-MOVER CO.**, Sampson St., Muscatine, Ia.

**Wheelbarrows (powered).**

**Representatives**  
Ariz., Phoenix—Equipment Sales Co., 720 So. 19th Ave. AL 8-7151  
Calif., Los Angeles—Esack Machinery Co., 1950 Santa Fe Ave. MA 9-3241  
Calif., San Francisco—Industrial Truck Sales, 563 Second St. YU 6-4261  
Colo., Denver—Ray Corson Machinery Co., 350 Kalamath St. MA 3-0165  
Idaho, Boise—Sawtooth Co., 1115 Grove St. Phone 3-3603  
Mont., Billings—Industrial Equipment Co., 415 No. 27th St. Phone 2-2158  
Mont., Great Falls—Normont Equipment Co., Tenth Ave. So. and River Rd. Phone 6-6527  
Mont., Kalispell—Treasure State Equipment Co., Fifth Ave. W. N. and Railroad. Phone 3628  
Nev., Reno—Pioneer Equipment Co., 525 Kietzke Lane  
N. Mex., Albuquerque—J. D. Coggins Co., 1717 No. Second St. Phone 3-5505  
Ore., Portland—Loggers & Contractors Machinery Co., 240 S. E. Clay St. BE 2-0151  
Utah, Salt Lake City—Rocky Mountain Machinery Co., 1485 So. Second West St. Phone 84-4378  
Wash., Seattle—Universal Equipment Co., 1549 Eastlake Ave. CA 2136

All manufacturers listed in this Directory have Western headquarters, branch offices or representatives



## QUAKER — RHEEM

### QUAKER PIONEER RUBBER DIV., H. K. PORTER CO., P. O. Box 791, Pittsburgh, Calif.

Belting (conveyor, elevator, V-belt), Packing material (sheet packing, duck and rubber packing, press pads, chute lining), Tape (vinyl electrical).

See advertisement on page 90

### "QUICK-WAY" TRUCK SHOVEL CO. 2401 E. 40th Ave., Denver 8, Colo.

Cranes (yard, truck)

#### Branches

Calif., Los Angeles—Douglas Colner, 10484 Lindbrook Dr. BR 0-4723  
Wash., Spokane—L. R. Engquist, No. 6624 Monroe St. EM 8066—FA 7-8066

#### Representatives

Ariz., Phoenix—Equipment Sales Co., 729 So. 19th St. AL 8-7151  
Calif., Fresno—Edw. R. Bacon Co., 2496 So. Railroad Ave.  
Calif., Los Angeles—Smith-Booth-Usher Co., 2001 Santa Fe Ave.  
Calif., Oakland—Edw. R. Bacon Co., 1185 57th Ave.  
Calif., Sacramento—Edw. R. Bacon Co., 420 17th St.  
Calif., San Francisco—Edw. R. Bacon Co., 2101 Folsom St. HE 1-3700  
Calif., Stockton—Edw. R. Bacon Co., 246 E. Miner Ave.  
Colo., Denver—H. W. Moore Equipment Co., 5990 Colorado Blvd. AF 8-0771  
Colo., Grand Junction—P. O. Box 1797. Phone 2388  
Idaho, Boise—Arnold Machinery Co., Inc., 7455 Westwood Dr. Phone 2-1174  
Idaho, Idaho Falls—Arnold Machinery, 1265 W. Broadway  
Mont., Billings—Montana Powder & Equipment Co., 1024 Fourth Ave. No. Phone 4-4426  
Mont., Helena—Montana Powder & Equipment Co., 12 E. Lawrence. HI 2-2990  
N. Mex., Albuquerque—J. D. Coggin Co., 1717 No. Second St. Phone 3-5505  
Ore., Portland—Columbia Equipment Co., 1240 S. E. 12th Ave. EA 7148  
Utah, Salt Lake City—Arnold Machinery Co., 433 W. Second St. DA 2-5631  
Wash., Seattle—Columbia Equipment Co., 5030 First Ave. So. LA 1530  
Wash., Spokane—Columbia Equipment Co., 1007 Freya St. KE 1581  
Wyo., Casper—Keremi Tractor & Equipment Co., 414 So. Elm St. 3-6631  
Wyo., Cheyenne—Keremi Tractor & Equipment Co., 502 W. 22nd St. Phone 8-8928

### R & K INDUSTRIAL PRODUCTS CO., 1945 No. Seventh St., Richmond, Calif.

Wheels (general industrial, hand truck, rubber tired).

See advertisement on page 168

#### Representatives

Calif., Los Angeles—Colson Equipment & Supply Co., 1317 Willow St.  
Calif., Oakland—Colson Equipment & Supply Co., 350 10th St.  
Calif., Oakland—Industrial Service, 616 McClary St.  
Calif., Sacramento—Sacramento Rubber Co., 721 "J" St.  
Calif., San Diego—Myers Equipment Co., 1025 11th St.  
Calif., San Francisco—Colson Equipment & Supply Co., 20 Beale St.  
Calif., San Francisco—Hamerslag Equipment Co., 110 Freeway Blvd.  
Calif., Santa Barbara—Industrial Products, 11 E. Haley St.  
Colo., Denver—Joe Coursey, 1243 Walnut St.  
Ore., Portland—F. E. Bennett Co., 426 N.W. Sixth Ave.  
Ore., Portland—Oregon Handling Equipment Co., 2949 N.W. St. Helens Rd.  
Wash., Seattle—Air-Mac Inc. of Washington, 3828 Fourth Ave.  
Wash., Seattle—Campbell Industrial Supply Co., 8433 Airport Way  
Wash., Spokane—Spokane Cycle & Toy Co., 217-219 Post St.

### RACK ENGINEERING CO. OF CALIF., INC., 731 E. 182nd St., Gardena, Calif.

Baskets (metal, wire), Bins, Carts (hand and push, other), Costers, Conveyors (gravity roller, pallet, skate, special and other), Cranes (gantry), Grabs, Pallets (steel and wire), Rocks (pallet, storage, other), Rollers (conveyor), Tables (conveying, ele-

vating, portable, other), Trucks (bag, barrel, drum, box type, dolly, hand lift, hand-mechanical lift, hydraulic lift, pallet, sheet handling), Wheels (conveyor, rubber tired).

#### Representatives

Ariz., Phoenix—James P. Kinney Co. of Arizona, 929 Grand Ave. AL 8-2778  
Calif., Los Angeles—James P. Kinney Co., 5141 Telegraph Rd. AN 9-7411  
Calif., Oakland—Green-Penny Co., 2211 San Pablo GL 1-8555  
Calif., San Carlos—James A. Old & Son, 1185 Greenwood Ave. LY 3-0065  
N. Mex., Albuquerque—Albuquerque Materials Handling Co., 6431 Linn Ave. Phone 6-5518  
Wash., Seattle—Timmerman Equipment Co., 1114-16 Post Ave. MU 6332

### RAPIDS STANDARD CO., 342 Rapi-stan Bldg., Grand Rapids 2, Mich.

Costers, Conveyors (belt, gravity roller, live roller, overhead, pallet, portable), Rocks (storage), Trucks (hand), Wheels (hand truck).

#### Representatives

Ariz., Phoenix—Luna Corp., 447 W. Jefferson. Phone 3-4021  
Calif., Los Angeles—E. A. Stevenson Co., 820 Santa Fe Ave. TR 6905  
Calif., San Francisco—Rapistan of Calif., 444 Brannan St., YU 2-3880  
Colo., Denver—Murray Sales Co., 16 Wazee Market. KE 4-5296  
Ore., Portland—Air-Mac, Inc., 1111 S.E. Grand Ave. BE 4-6524  
Tex., El Paso—E. D. Flournoy Co., 1224 E. Missouri St. Phone 3-5531  
Utah, Ogden—The Horsley Co., 2416 Grant Ave. Phone 2-1847  
Wash., Seattle—Air-Mac, Inc., 3533 Fourth Ave. So. MU 3388

### RAYBESTOS - MANHATTAN, INC., MANHATTAN RUBBER DIV., 61 Willett St., Passaic, N. J.

Belting (conveyor, fabric, canvas, elevator, rubber, endless), Conveyors (belt, bucket), Elevators (belt, bucket), Slings (belt).

#### Branches

Calif., Los Angeles—4651 Pacific Blvd.  
Calif., San Francisco—131 Mission St.  
Ore., Portland—1220 S. W. Stark St.  
Wash., Seattle—2440 Sixth Ave. So.

### RAYMOND CORP., 161 Madison St., Greene, N. Y.

Platforms (loading), Stackers (electric portable, hand portable), Tables (elevating, portable, sheet feeding), Trucks (electric fork, hand, motorized hand, hand lift, hand-electric lift, hydraulic lift, power-driven lift, pallet, skid handling, electric trolley).

See advertisement on page 113

#### Representatives

Ariz., Phoenix—E. D. Flournoy Co., 420 So. Third Ave. AL 2-8607  
Calif., Los Angeles—W. T. Billard, Inc., 734 E. Third St. MI 2659  
Calif., San Francisco—Rapistan of California, Inc., 444 Brannan St. YU 2-3880  
Colo., Denver—Murray Sales Co., 16 Wazee St. KE 5297  
N. Mex., Albuquerque—E. D. Flournoy Co., 217 Sixth St. S. W. Phone 3-0155  
Ore., Portland—Air-Mac, Inc., 1435 S.E. Union Ave. FI 6524  
Utah, Ogden—The Horsley Co., 2416 Grant Ave.  
Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave. So. MU 3388  
Wash., Spokane—Air-Mac, Inc., E. 3710 Trent Ave. KE 0561

### READING CRANE & HOIST CORP., 2100 Adams St., Reading, Pa.

Cranes (gantry, hand power, jib, pillar, swing, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, I-beam overhead, monorail overhead), Hoists (chain, crane, electric, hand, monorail, portable, traveling), Trolleys (I-beam).

#### Representative

Utah, Salt Lake City—Lang Co., First So. and Second W.

### READY-POWER CO., 3826 Grand River Ave., Detroit 8, Mich.

Power units for electric industrial trucks.

#### Representatives

Calif., Huntington Park—Karl Moellendick, Inc., 7813 California St. LO 5-7425  
Wash., Seattle—Geo. Hundsdorfer, 1107 E. Pike. EA 4980  
Wash., Seattle—Harold Thompson, 1107 E. Pike. EA 4980

### REEVES PULLEY CO., DIV. RELIANCE ELECTRIC & ENGINEERING CO., 1225 Seventh St., Columbus, Ind.

Belting, Pulleys, Variable speed drives, controls  
Branch Offices  
Calif., Burlingame—1525 Adrian Rd. OX 7-5341  
Calif., Los Angeles—6035 E. Olympic. RA 3-8454

#### Representatives

Colo., Denver—Hamilton Associates, 1236 Eliot St. CH 4-1506  
Ore., Portland—Western Gear Corp. of Oregon, 930 S.E. Oak St. BE 5-3177  
Utah, Salt Lake City—Lundin & May Foundry Co., 454 W Fifth, No. EL 9-2005  
Wash., Seattle—Shaffer & Nelson, 312 Occidental Ave. MU 0186-0187

### REPUBLIC RUBBER DIV., LEE RUBBER & TIRE CORP., 1410 Albert St., Youngstown, Ohio

Belting (conveyor, elevator, endless), Slings (belt), Hose.

#### Representatives

Calif., Los Angeles—Hendrie Belting & Rubber  
Calif., San Francisco—Pacific Coast Rubber  
Ore., Portland—J. E. Haseltine & Co.  
Wash., Seattle—B & J Equipment Co.  
Wash., Spokane—General Machinery Co.  
Wash., Tacoma—DuCharme Belting & Rubber

### REPUBLIC STEEL CORP., Republic Bldg., Cleveland 1, Ohio

Barrels (shipping, steel), Bins, Boxes (shipping, tote), Chains, Pallets, Rocks (pallet, storage), Skids, Slings (chain).

#### Branches

Calif., Los Angeles—M-H Equip., General Petroleum Bldg. MI 5144  
Calif., Los Angeles—Chain Div., 2900 E. 44th St. LU 8-9218  
Calif., San Francisco—M-H Equip., 225 Rialto Bldg. GA 1-0977  
Calif., So. San Francisco—Chain Div., 196 Freeway. PL 6-0088  
Colo., Denver—M-H Equip., 405 Continental Oil Bldg. MA 3-5289  
Colo., Denver—Berger Div., 2905 Quitman St. GL 5-3837  
Ore., Portland—Berger Div., 1801 N.W. Northrup St. CA 6944  
Ore., Portland—Chain Div., 2258 N.W. Raleigh St. CA 7-6476  
Wash., Seattle—M-H Equip., 6636 White-Henry-Stuart Bldg. MA 5583  
Wash., Seattle—Chain Div., 6901 E. Marginal Way. RA 3800

#### Representatives

Calif., Fresno—Petley, Inc., Anglo Bank Bldg.  
Calif., Los Angeles—Petley, Inc., 5424 E. Slauson Ave. RA 3-3527  
Calif., Oakland—Petley, Inc., 899 73rd Ave. TR 2-7621  
Ore., Portland—The Thom Co., 7427 N. Denver

### REVOLVATOR CO., 8798 Tonnele Ave., North Bergen, N. J.

Cranes (hand power), Elevators (portable tiering), Rocks, Stackers (portable electric, portable hand), Tables (elevating), Trucks (elevating or lifting, electric fork, hand, motorized hand, industrial, hand lift, hand-electric lift, hand-mechanical lift, hydraulic lift, power-driven lift, pallet, skid handling, electric tiering).

See advertisement on page 110

#### Representatives

Calif., Los Angeles—J. W. Lafferty Co., 5422 E. Washington Blvd. RA 3-5233  
Calif., San Francisco—J. G. Perin Co., 575 Howard St. GA 1-1827  
Colo., Denver—Hahn Equipment Co., 1745 Blake St. KE 4-5500  
Ore., Portland—Oregon Handling Equipment Co., 2949 N.W. St. Helens Rd.  
Wash., Seattle—Cascade Handling Equipment Co., 911 Western Ave. MA 7069

### RHEEM MFG. CO., 4361 Firestone Blvd., South Gate, Calif. LO 7-1155

Barrels for shipping (fibre, steel).

See advertisement on page 164

#### Branches

Calif., Richmond—800 Chesley Ave. BE 4-7114  
Wash., Seattle—3693 E. Marginal Way. MA 7620



**RHOADS, J. E., & SONS**, 2100 W. 11th St., Wilmington, Del.  
Baling (leather), Belt fastenings and belt linings, Pulleys, Strapping.

*Representatives*  
Calif., Los Angeles—R. H. Hergert, 704 So. Spring St.  
Calif., San Francisco—H. N. Cook, 401 Howard St.  
Ore., Portland—C. L. Koerner, 12200 S.E. Outfield Rd.

**RICHARDSON SCALE CO.**, 668 Van Houten Ave., Clifton, N. J.  
Conveyors (bag), Feeders (vibrating), Scales (automatic, conveyor, packaging, portable), Select-O-Weight remote weight formulation.

*Branch*  
Calif., San Francisco—680 Market St. SU 1-3724  
*Representative*  
Colo., Lakewood—D. O. Ferris, 1020 Corr St., BE 3-0801

**RICHARDS-WILCOX MFG. CO.**, 174 Third St., Aurora, Ill.  
Conveyors (chain or link, overhead, trolley), Cranes.

See advertisement on page 191

*Branches*  
Calif., Los Angeles—2323 W. Third St. DU 8-6173  
Calif., San Francisco—850 So. Van Ness Ave. MI 5-6700  
Colo., Denver—1217 Bannock St. AC 2-0681  
Wash., Seattle—1160 Fairview, No. MA 3650  
*Representative*  
Calif., Los Angeles—Imperial Conveyor & Engineering Co., 909 Santa Fe Ave. VA 8197

**ROBBINS & MYERS, INC., HOIST & CRANE DIV.**, 1345 Lagonda Ave., Springfield, Ohio

Cranes (gantry, hand power, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, 1 beam overhead, monorail overhead), Hoists (chain, crane, drum, electric, hand, monorail, portable, traveling), Winches and Windlasses.

*Representatives*  
Calif., Huntington Park—A. B. Miller, 1810 Salt Lake Ave.  
Colo., Denver—Hahn Equipment Co., 1745 Blake St.  
N. Mex., Albuquerque—E. D. Flournoy Co., 217 So. Sixth St.  
Ore., Portland—C. L. Koerner, 12200 S. Outfield Rd.  
Utah, Salt Lake City—The Galigher Co., 545 W. Eighth St. St.  
Wash., Seattle—F. T. Crowe & Co., Inc., 325 Second Ave. W.

**ROCKY MOUNTAIN STEEL**, 1753 Blake Ave., Los Angeles 31, Calif.  
Tractors (diesel), electric warehouse, gasoline warehouse, monorail, Trailers (factory and warehouse, motor truck and tractor).

*Branch Office*  
Calif., Los Angeles—1753 Blake Ave. NO 5-4321  
*Representative*  
Calif., San Francisco—Ira G. Perin Co., 575 Howard. GA 1-1827

**ROEBLING'S, JOHN A., SONS CORP.**, 640 So. Broad St., Trenton 2, N. J.

Slings (wire rope), Wire rope.  
*Branches*  
Calif., Los Angeles—5340 E. Harbor St. RA 3-6421  
Calif., San Francisco—1740 17th St. MA 1-8787  
Colo., Denver—4801 Jackson St. FR 7-2769  
Wash., Seattle—900 First Ave. So. MA 4992

**ROL-AWAY TRUCK MFG. CO., INC.**, 6143 S. E. Foster Rd., Portland 6, Ore.

Carts, Trucks (aluminum, box type, factory and warehouse, hand, sheet handling, other).

*Representatives*  
Ariz., Phoenix—James P. Kinney Co., 1101 Grand Ave.  
Calif., Los Angeles—James P. Kinney Co., 5141 Telegraph Rd.  
Calif., Los Angeles—McKinley Equipment Corp., 1587 Esperanza St.  
Calif., Los Angeles—Modern Materials Handling Equipment Co., 1788 Griffin. CA 5-0422

Calif., Oakland—Green-Penny Co., 2211 San Pablo Ave.  
Calif., San Diego—C. S. Goodale Co., 3694 Kettner Blvd.  
Calif., San Diego—James P. Kinney Co., 3948 Utah St.  
Calif., San Francisco—P. F. O'Donnell Co., 527 Brannan St.  
Calif., San Francisco—Norcal Storage Co., 629 Fulton St.  
Calif., So. San Francisco—Hamerslag Equipment Co., 119 Freeway Blvd.  
Colo., Denver—J. D. Whiting, P. O. Box 3382  
Idaho, Idaho Falls—Parkinson Tractor Co., 1333 No. Yellowstone  
N. Mex., Albuquerque—James P. Kinney Co., 1706 Central Ave., S. E.  
Utah, Salt Lake City—Equipment Supply Co., 16 Post Office Pl.  
Wash., Seattle—Air Mac, Inc. of Washington, 3838 Fourth Ave. So.  
Wash., Seattle—G. E. Burleigh Co., 5245 Pullman Ave.

**ROLL RITE CORP.**, 801 Jefferson St., Oakland 19, Calif. GL 1-5921

Carts (hand, push, other), Casters, Conveyors (pallet), Dock boards, Loading platforms, Racks (pallet, storage, other), Loading Ramps, Tires (industrial truck and trailer), Trailers (factory and warehouse), Trucks (bag, barrel, drum, box type, dolly, factory and warehouse, hand, pallet), Wheels (general industrial, hand truck, rubber tired, trailer) Skeleton Steel Pallets.

**ROPER, GEO. D., CORP.**, Rockford, Ill.

Positive displacement rotary gear pumps for industrial and general transfer service.

See advertisement on page 76

*Representatives*  
Ariz., Phoenix—Salt River Pump & Supply Co., Inc., 2011 W. Jackson St. Phone 3-3526  
Calif., Los Angeles—Pump Engineering Co., 2011 Santa Fe Ave. TR 5662  
Calif., San Francisco—Woodin & Little, 80 Elmira St. JU 6-6500  
Colo., Denver—Colorado Pump & Supply Co., 1449 So. Broadway. PE 3-3709  
Colo., Denver—Eaton Metal Products Co., 4800 York St. TA 7205  
Colo., Denver—Mine & Smelter Supply Co., 1422 17th St. KE 3111  
Colo., Denver—Waukesha Engine & Equipment Co., 4999 Jackson St. FL 1641  
Mont., Billings—Eaton Metal Products Co., 501 No. 18th St. Phone 2139  
Mont., Billings—Great Northern Tool & Supply Co., 2224 Minnesota Ave. Phone 2-2141  
Mont., Cut Bank—Great Northern Tool & Supply Co., Phone 200  
Mont., Kevin—Great Northern Tool & Supply Co. Phone 7  
N. Mex., Albuquerque—Eaton Metal Products Co., 1824 No. Second St. Phone 3-4406  
N. Mex., Albuquerque—Kohlhaas Tank & Equipment Co., 2212 No. First St. Phone 2-3144  
N. Mex., Albuquerque—New Mexico Tank & Culvert Co., 1717 No. Sixth St. Phone 2-2956  
N. Mex., Farmington—Waukesha Engine & Equipment Co., 503 E. Main. Phone 454W  
Ore., Portland—Pacific Pumping Co., 526 N.W. Broadway. AT 2121  
Wash., Seattle—Pacific Pumping Co., 114 W. Harrison. EL 6222  
Wyo., Casper—Great Northern Tool & Supply Co., 353 W. Midwest. Phone 3-8356  
Wyo., Casper—Waukesha Engine & Equipment Co., 810 W. Yellowstone Rd. Phone 4076

**ROSS CARRIER DIV.**, see **CLARK EQUIPMENT CO.**, **ROSS CARRIER DIV.**

**ROTARY LIFT CO.**, 1054 Kansas St., Memphis 2, Tenn.

Cranes (jib, pillar, swing, bracket), Dock boards, Elevators, Hoists (hydraulic), Jacks (hydraulic, lift), Platforms (loading), Ramps, Tables (elevating).

*Branches*  
Calif., Pacific Palisades—727 Chapala Dr.  
*Representatives*  
Ariz., Phoenix—Phoenix Elevator Co., Title and Trust Bldg.  
Calif., Fresno—Valley Elevator Co., 921 L St.  
Calif., Los Angeles—Elevator Maintenance Co., 1316 Glendale Blvd.  
Calif., Oakland—Moody, Sweeney & Rowe, 2510 Filbert St.  
Calif., Sacramento—Valley Elevator Co., 1606 D St.

## RHOADS — SAGINAW

Calif., San Jose—San Jose Elevator Co., 1016 Stockton Ave.  
Colo., Denver—Wm. Colin Kirk & Associates, 1197 Stout St.  
N. Mex., Albuquerque—Hunter-Hayes Elevator Co., 106 Buena Vista S.E.  
Ore., Portland—Oregon Elevator Co., P.O. Box 546  
Utah, Salt Lake City—Elevator Service & Supply Co., 36 E. Ninth South St.  
Wash., Seattle—Sound Elevator Co., 2718 Elliott Ave.  
Wash., Spokane—Spokane Elevator Co., 2940 E. Trent St.  
Wash., Tacoma—Globe Machine Manufacturing Co., 301 E. 11th St.

**ROURA IRON WORKS**, 1401 Woodland Ave., Detroit, Mich.

Self-dumping hoppers for use with fork or platform type lift trucks.

*Representatives*  
Calif., Los Angeles—James P. Kinney Co., 5141 Telegraph Rd. AN 9-7411  
Calif., Oakland—Lifton, Inc., 6601 San Leandro. SW 8-9100  
Wash., Seattle—Air-Mac Inc., 3838 Fourth Ave. So. MU 3388

**ROWE METHODS, INC.**, 2534 Detroit Ave., Cleveland 13, Ohio  
Adjustable ramps for loading docks.

*Representatives*  
Calif., Oakland—Industrial Service Co., 616 McClary St. LO 9-2545  
Ore., Portland—Air-Mac, Inc., 1111 S.E. Grand. BE 4-6524  
Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave., So. MU 3388

**RUGER EQUIPMENT, INC.**, 615 W. Fourth St., Uhrichsville, Ohio.

Cranes (hand power, hydraulic, portable), Hoists (crane, hand, hydraulic, portable), Hand-operated Hydraulic Truck-Mounted Cranes.

*Representatives*  
Calif., Hollywood—James Stancart, P. O. Box 23. ME 3-0386  
Ore., Portland—Ruger Equipment Co., 2784 N. W. Thurman. CA 7-6282

**RUSSELL MFG. CO., THE**, 400 E. Main St., Middletown, Conn.

Baling (conveyor, canvas, elevator, endless).  
*Branch Office*  
Calif., Oakland—555 Fifth Ave. GI 2-2442  
*Representative*  
Calif., Los Angeles—C. R. Davis Co., 422 E. 3rd. MU 3144

**SACKNER PRODUCTS, INC.**, 901 No. Ottawa, Grand Rapids 2, Mich.

Packaging pads, Padding materials, Padded steel strap.

*Representatives*  
Calif., Los Angeles—Glenn D. McLaughlin Co., 413 So. Wall St. MA 5-1651  
Colo., Denver—Acme Upholstery Supply, 1401 Blake St. AC 2-3823  
Ore., Portland—Van Waters & Rogers, 2133 N.W. Yeon St.  
Wash., Seattle—Van Waters & Rogers, 4000 1st Ave., So. SE 5050  
Wash., Spokane—Van Waters & Rogers, No. 809 Washington  
Utah, Salt Lake City—Western Leather Co., 144 So. 4th St., E. EM 4-8487

**SAGE EQUIPMENT CO., INC.**, 30 Essex St., Buffalo 13, N. Y.

Conveyors (apron, automatic, bag, bale, belt, bucket, chain or link, right, foundry, gravity roller, live roller, pallet, portable, screw, skate, slot, special and other).

*Representative*  
Utah, Salt Lake City—Equipment Supply Co., 16 Post Office Pl. Phone 3-9074

**SAGINAW PRODUCTS CORP.**, 68 Williamson St., Saginaw, Mich.

Castors, Conveyors (gravity roller, overhead), Jacks (screw), Rollers (conveyor), Trailers (factory and warehouse), Trolleys, Trucks (factory and warehouse, hand), Wheels (conveyor, general industrial, hand truck, rubber tired, tractor, trailer).

*Representatives*  
Calif., Berkeley—Walter E. Weyman, 1465 Fourth St.  
Calif., Los Angeles—W. H. Del Mar Co., 3931 W. Slauson Ave.  
Wash., Seattle—Paul A. Shoudy, 2963 First Ave., So.



## SANDVIK — SPANMASTER

**SANDVIK STEEL, INC.,** 1702 Nevins Rd., Fair Lawn, N. J.

Belting, Conveyors.

*Branch Offices*  
Calif., Los Angeles—3338 So. Malt Ave. RA 3-9116

**SASGEN DERRICK CO.,** 3101 W. Grand Ave., Chicago 22, Ill.

Cranes (hand power), Elevators, Hoists (derrick, drum, electric, gasoline, hand), Winches and Windlasses.

*Representatives*  
Calif., Los Angeles—Smith-Booth-Usher Co., 2001 Santa Fe  
Calif., San Francisco—Edw. R. Bacon Co., 17th and Folsom  
Colo., Denver—Universal Co., 1426 Ulster  
Ore., Portland—Loggers & Contractors Machinery Co., 240 S.E. Clay  
Wash., Seattle—Northwest Scaffolding Co., 3636 E. Marginal Way

**SAUERMAN BROS., INC.,** 620 So. 28th Ave., Bellwood, Ill.

Conveyors (drag), Hoists (air, drum, electric, gasoline), Winches and windlasses, Wire rope and fittings.

*Representatives*  
Calif., Los Angeles—Smith-Booth-Usher, 2001 Santa Fe Ave. TR 6911  
Colo., Denver—Constructors Equipment Co., 3707 Downing St. AL 5-3474  
Mont., Butte—Hall-Perry Machinery Co., 812 E. Iron. Phone 2-2323  
Ore., Portland—Clyde Equipment Co., 1631 N.W. Thurman. BR 5561  
Wash., Seattle—Clyde Equipment Co., 3410 First Ave. So. MA 1235  
Wash., Spokane—Intermountain Equipment Co., 611 Sprague St. TE 2521

**SCHILD BANTAM CO.,** 223 Park St., Waverly, Iowa

Cranes (yard, truck, carrier-mounted, crawler-mounted, self-propelled, power), Clamshells, Draglines, Grapples, Back hoes, Shovels, Magnets, Pile-drivers, Backfillers.

*Branch Offices*  
Calif., San Fernando—J. C. Carlile, 10451 Peach St.  
Wash., Spokane—R. A. Otterness, P. O. Box 849

*Representatives*  
Alaska, Anchorage—Yukon Equipment, Inc., P. O. Box 1539  
Alaska, Fairbanks—Yukon Equipment, Inc., P. O. Box 1290  
Alaska, Ketchikan—Yukon Equipment, Inc., P. O. Box 174  
Ariz., Phoenix—Cook Bros. Equipment Sales, 2300 So. 16th St.  
Calif., Fresno—Constructors Equipment & Supply Co., 1143 "C" St.  
Calif., Los Angeles—Cook Bros. Construction Machinery Co., 3334 San Fernando Rd.  
Calif., Los Angeles—Essick Machinery Co., 1950 Santa Fe Ave.  
Calif., San Francisco—Standard Machinery Co., 450 Bayshore Blvd.  
Calif., Santa Ana—Essick Machinery Co., 12202 Westminster Ave.  
Colo., Denver—Power Equipment Co., P. O. Box 28  
Cool., Grand Junction—Power Equipment Co., P. O. Box 1848  
Hawaii, Honolulu—Edward R. Bacon of Hawaii, Ltd., P. O. Box 379  
Idaho, Boise—Engineering Sales Service, Inc., P. O. Box 851  
Idaho, Lewiston—Modern Machinery Co. of Idaho, Inc.  
Idaho, Pocatello—Engineering Sales Service, Inc., 1900 Fifth  
Mont., Billings—Industrial Equipment Co., P. O. Box 1396  
Mont., Black Eagle—Power Equipment Co., P. O. Box 367  
Nev., Elko—A-D Machinery Co., 251 W. Commercial St.  
Nev., Reno—Reno Equipment Sales Co., P. O. Box 2428  
N. Mex., Albuquerque—Harry Cornelius Co., P. O. Box 563  
N. Mex., Roswell—Smith Machinery Co., P. O. Box 637  
Ore., Medford—Cal-Ore Machinery Co., P. O. Box 232  
Ore., Portland—Wood Tractor Co., 1033 S.E. Main St.  
Utah, Salt Lake City—Kimball Equipment Co., P. O. Box 1103  
Wash., Seattle—Western Tractor & Equipment Co., 745 Lucile St.  
Wash., Seattle—Yukon Equipment, Inc., 327 Colman Bldg.  
Wash., Spokane—Modern Machinery Co., Inc., P. O. Box 97, Parkwater Station

**SCHMIDT LITHOGRAPH CO.,** 461 Second St., San Francisco, Calif.

Corrugated and fibre shipping boxes.

*Branches*  
Calif., Fresno—216 Security Bank Bldg. FR 3-4536  
Calif., Los Angeles—2405 W. Eighth St. DU 8-6101  
Calif., Sacramento—1601 J St. HU 4-2709  
Ore., Portland—320 Hughes Bldg. AT 1458  
Wash., Seattle—800 Terminal Sales Bldg. EL 7462

**SCHULTZ MATERIALS HANDLING CORP.,** 340 11th St., Richmond 5, Calif.

Cranes (gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, 1 beam overhead, monorail overhead, Trolleys (hoist).

**SCREW CONVEYOR PACIFIC CORP.,** 1100 Richard Ave., Santa Clara, Calif.

Conveyors (continuous flow, screw), Elevators (belt, bucket, continuous flow), Screw-Lifts, Screw-Veysors, Screw-Flo, Truck dumpers (hydraulic), Overhead truck lifts.

*Branch*  
Calif., Santa Clara—1100 Richard Ave. CH 3-2276  
*Representatives*  
Ariz., Phoenix—Redman Equipment Co., 610 So. 19th. AL 8-3794  
Calif., Oakland—Bay City Iron Works, 4th and Washington Sts. HI 4-1092  
Ore., Portland—Reid-Strutt, Inc., 1015 S.E. Stark. BE 4-4367  
Ore., Portland—J. J. Ross Mill Furnishing Co., 708 N.E. Second Ave.  
Wash., Spokane—Carter-Miller Mill Furnishing Co., 1324 No. Ash St. BR 1154  
Wash., Walla Walla—Morrison Supply Co., 247 E. Alder St.

**SHARON STEEL CORP.,** see BRAINARD STEEL DIV.

**SHAW-BOX CRANE & HOIST DIV.,** see MANNING, MAXWELL & MOORE, INC., SHAW-BOX CRANE & HOIST DIV.

**SHEPARD NILES CRANE & HOIST CORP.,** Schuyler Ave., Montour Falls, N. Y.

Cranes (charging and drawing, gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, 1-beam overhead, locomotive overhead, monorail overhead, yard truck, tractor, other), Hoists (air, bucket, chain, crane, derrick, drum, electric, monorail, portable, skip, traveling, other), Winches and Windlasses.

*Branches*  
Calif., Bell—6515 Salt Lake Ave. LO 5-6255  
Calif., Emeryville—3637 Adeline St. OL 8-5411  
*Representatives*  
Utah, Salt Lake City—Modern Equipment Co., 52 W. Second So. St. Phone 9-2171  
Wash., Seattle—Preston Faller, 1921 Minor Ave. MA 4256  
B. C., Vancouver—J. H. Ryder Machinery Co., 2246 E. Hastings

**SHERMAN PAPER PRODUCTS CORP. OF CALIF.,** 2001 No. Soto, Los Angeles 32, Calif.

Flexible and rigid paper packing materials.

*Branches*  
Calif., Sacramento—1404 Greenhills Rd. IV 7-7839  
Calif., San Francisco—90 Charter Oak Ave. DE 3-3671  
Colo., Denver—416 So. Ogden Ct. PE 6671  
Wash., Seattle—1523 Airport Way. MA 6838

**SHERMAN PRODUCTS, INC.,** 3200 W. 14 Mile Rd., Royal Oak, Mich.

Fork-lift mounted on Ford gasoline tractors.

*Representative*  
Calif., Los Angeles—Hight-Thompson, Inc., 4770 E. 48th St. LU 2-6221  
Calif., Richmond—Pacific Tractor & Implement Co., 2512 Florida Ave. BE 3-1552  
Colo., Denver—McCarty-Sherman Distributing Corp., 275 Mariposa St. TA 5-6358

Mont., Billings—Wymont Tractor & Equipment Co., 3907 First Ave., So. Phone 9-5051  
Ore., Portland—Columbia Tractor & Implement Co., 2720 N.W. 29th Ave. CA 7-0586  
Utah, Salt Lake City—Intermountain Ford Tractor Sales Co., 703 W. Second So. EL 9-3714

**SIGNODE STEEL STRAPPING CO.,** 2600 No. Western Ave., Chicago 47, Ill.

Steel Strapping, Tools and Accessories, Expendable Pallets, Retaining Strips and Doors, Adjustable-Paks

See advertisement on page 31

*Branches*  
Ariz., Phoenix—210 W. Adams St. AL 8-5691  
Calif., Los Angeles—659 E. Gage Ave. AD 3-6185  
Calif., San Francisco—388 Brannan St. DO 2-7222  
Colo., Denver—1850 So. Filbert Ct. Phone 3-3898  
Ore., Portland—1519 N.W. Irving St. CA 3-5327  
Utah, Salt Lake City—2004 So. Eighth. E. EM 4-8353  
Wash., Seattle—2 Hanford St. MU 2343  
Wash., Spokane—417 Paulsen Bldg. MA 4-6211

**SILENT HOIST & CRANE CO.,** 841 63rd St., Brooklyn 20, N. Y.

Cranes (yard, truck, tractor), Loaders (portable, self-propelled), Trucks (diesel fork, gasoline fork, gasoline industrial, gasoline lift), Winches and Windlasses.

*Representatives*  
Calif., San Francisco—Hameralag Equipment Co., 45 Elmira St. JU 7-1357  
Calif., South Gate—Cost Reduction Equipment Co., 5200 Chakemoon St. LO 7-2487  
Idaho, Boise—Intermountain Equipment Co., P. O. Box 1129. Phone 3-6441  
Mont., Missoula—Westmont Tractor & Equipment Co.  
N. Mex., Albuquerque—R. L. Harrison Co., P. O. Box 1320. Phone 7-8811

**SIMPLICITY ENGINEERING CO.,** 210 So. Oak St., Durand, Mich.

Conveyors (foundry, vibrating), Feeders (vibrating). *Branch*  
Calif., El Monte—Dick A. Aleshire, 2226 Rosemead Blvd. GI 8-5290

*Representatives*  
Calif., Los Angeles—Snyder Foundry Supply Co., 2444 E. 57th St.  
Calif., Oakland—Pacific Graphite Co., Inc., 40th and Linden Sts.  
Ore., Portland—LaGrand Industrial Supply Co., 15 S. W. Arthur  
Wash., Seattle—Carl F. Miller & Co., Inc., 1217 So. Sixth Ave.

**SKARNES ENGINEERING & SUPPLY INC.,** 2907 E. Franklin Ave., Minneapolis 6, Minn. FE 9-2719

Trucks (lift, hand).

*Representatives*  
Calif., Los Angeles—W. T. Billard, Inc., 734 E. Third St.  
Calif., Oakland—Roll-Rite Corp., 801 Jefferson St.  
Colo., Denver—Murray Sales Co., 16 Wazee Market  
Wash., Seattle—Air-Mac, Inc., 3838 4th Ave. So. MU 3388

**SOUTHWORTH MACHINE CO.,** 30 Warren Ave., Portland, Me.

Tables (elevating, portable).

*Representatives*  
Calif., Los Angeles—Harry W. Brintnall Co., 746 E. 17th St. RI 9-0223  
Calif., Los Angeles—Harris-Seybold Co., 1830 W. Pico Blvd. DU 7-3219  
Calif., San Francisco—Harry W. Brintnall Co., 430 Howard. GA 1-5867  
Calif., San Francisco—Harris-Seybold Co., 885 Bryant. MA 1-7925

**SPANMASTER CRANE DIV., JERVIS B. WEBB CO. OF CALIF.,** 9301 Rayo Ave., South Gate, Calif.

Cranes (gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power overhead, 1 beam overhead, monorail overhead), Hoists (monorail), Trolleys.

*Branches*  
Calif., San Francisco—2166 Market St. KL 2-2709  
Utah, Salt Lake City—52 W. Second So. St. EL 9-2171  
Wash., Seattle—P. O. Box 4086 Magnolia Station. MU 1058



## SPEEDWAYS — TEMPLETON

### SPEEDWAYS CONVEYORS, INC., 202-08 Rhode Island St., Buffalo 13, N. Y.

Conveyors (belts, continuous flow, gravity roller, portable, skates, stands), Tables (conveying), Wheels (conveyor).

**Representatives**  
Calif., Los Angeles—Robco, Inc., 5348 Jillson St.  
Calif., San Francisco—Hammerslag Equipment Co., 110 Freeway Blvd. JU 7-1357  
Colo., Denver—Edwin F. DeLine Co., 224 W. Alameda Ave.  
Colo., Denver—King and East Machinery Co., 2390 So. Delaware St. SH 1747  
T.H., Honolulu—Foster Equipment Co., 729 Ahua St.  
Wash., Seattle—Masterson's Equipment Supplies, 2720 Westlake No.

### SPRINGPORT STEEL PRODUCTS CO., 106 Willow St., Springport, Mich.

Basket (wire), Boxes for shipping (wire mesh), Pallets (wire mesh).

**Representatives**  
Calif., Los Angeles—M. E. Canfield Co., 419 E. Third St. MA 6-6606  
Calif., Los Angeles—McKinley Equipment Corp., 1557 Esperanza. AN 9-0567  
Calif., San Francisco—P. F. O'Donnell Co., 2298 Jerrold Ave. AT 8-6382  
Ore., Portland—Oregon Handling Equipment Co., 2949 N.W. St. Helens Rd. GA 8-4196  
Wash., Seattle—Mechanical Handling Co., 1401 W. Garfield. GA 0200

### STANDARD CONVEYOR CO., No. St. Paul 9, Minn.

Conveyors (apron, automatic, belt, continuous flow, foundry, gravity roller, live roller, portable, skate, slot).

See advertisement on page 166

**Branches**  
Calif., Los Angeles—115 E. 23rd St. RI 1150  
Calif., San Francisco—840 Harrison St. EX 2-1560  
Colo., Denver—1795 Sheridan Blvd.  
Utah, Salt Lake City—204 Dooley Bldg., Phone 4-5421  
Wash., Seattle—502 First Ave. So. SE 0707

### STANDARD-KNAPP, DIV. OF EM-HART MFG. CO., 127 Main St., Portland, Conn.

Gloves and sealers, Packers (can, case and bottle), Labelers, Container removers, Unscramblers.

**Branch Offices**  
Calif., Los Angeles—4501 So. Santa Fe Ave. LU 3-2421  
Calif., San Mateo—444 Peninsular Ave. DI 2-3258  
Wash., Seattle—3222 Western Ave. AL 3390

### STANDARD PRESSED STEEL CO., P. O. Box 913, Jenkintown, Pa.

Shelving (adjustable and "Erectomatic").

**Branch Offices**  
Calif., El Segundo—741 Lairport, El Segundo 1655  
**Representatives**  
Calif., Los Angeles—Green-Penny Co., 421 E. Washington Blvd. RI 8-1191  
Calif., Oakland—Green-Penny Co., 2211 San Pablo Ave. GL 1-8555

### STANLEY WORKS, STEEL STRAPPING DIV., 195 Lake St., New Britain, Conn.

Steel strapping.

See advertisement on page 21

**Branches**  
Calif., Los Angeles—108 W. Sixth St. TR 6795  
Calif., San Francisco—681 Market St. (Monadnock Bldg.) YU 6-5914  
Colo., Denver—Murray Sales Co., 16 Wazee Market. KE 4-5296  
Wash., Seattle—105 Second St. No. MA 5773

### STAR IRON & STEEL CO., 435 E. 11th St., Tacoma, Wash. MA 9133

Cranes (gantry, hand power, double beam overhead, electric and electric traveling overhead, I-beam overhead), Grapples (lumber).

### STEARNS ELECTRIC CORP., 120 No. Broadway, Milwaukee 2, Wis.

Magnets, Pulleys (magnetic) Clutches, Brakes.

**Representatives**  
Calif., Los Angeles—Willard Engineering Co., 2708 So. Hill St. RI 7-0538  
Calif., San Francisco—Transmission Engineering Co., 53 Stevenson St. SU 1-4738  
Colo., Denver—Schloss & Shubert, 1626 Wazee St. AC 2741  
Wash., Seattle—John H. Marvin Co., 422 First Ave. W. EL 6361

### STEPHENS-ADAMSON MFG. CO., 85 Ridgeway Ave., Aurora, Ill.

Belt (conveyor), Car Pullers, Centrifugal loaders for bulk material, Conveyors (apron, automatic, bag, bale, belt, bucket, chain or link, continuous flow, drag, flight, foundry, gravity roller, live roller, screw, slot, vertical, vibrating, zipper, special and other), Elevators (belt, bucket, continuous flow), Hauls (bucket, electric, skip), Pulleys (conveyor), Rollers (conveyor), Winches and Windlasses.

See advertisement on page 99

**Branches**  
Calif., Los Angeles—2227 E. 37th St. LU 3-1511  
Calif., San Francisco—145 Mission St. GA 1-8666  
Colo., Denver—320 Denver Club Bldg. AL 5-0533  
Ore., Portland—1007 E. Burnside St. BE 5-4473  
Utah, Salt Lake City—210 W. 33rd So. Phone 6-8683  
Wash., Seattle—714 Jos. Vance Bldg. MU 3993

**Representatives**  
Ariz., Phoenix—Semon Bearing & Supply Co., 325 N. Third Ave. AL 8-7566  
Calif., Fresno—Elliott Mfg. Co., 1735 Ventura Ave. Phone 3-6236  
Calif., Los Angeles—Degen-Fiege Co., 4559 E. Shelia St. AN 9-0781  
Ore., Portland—Harshberger Equipment Co., 425 S. E. Ninth. BE 4-7284  
Utah, Salt Lake City—C. H. Spencer & Co., P. O. Box 1054

### STOKER, H. L., CO., P. O. Box 112, Claremont, Calif.

Automatic bag packers (valve and open mouth), Drum packers.

See advertisement on page 110

**Representatives**  
Canada, Vancouver, B. C.—General Sales Syndicate of Canada, 470 Gravelle St.  
Calif., San Francisco—Industrial Vibrator and Machinery Co., 7 Front St.  
Colo., Littleton—Byerrum Engineering Sales Co., P. O. Box 105  
Wash., Seattle—Fred C. Graves Co., 418 Eighth Ave., No.

### STREETER-AMET CO., Grays Lake, Ill.

Scales (Industrial).

**Branch Office**  
Calif., Los Angeles—10357 W. Pico. BR 2-3723

### STURDI-BILT ENGINEERING CO., 2501 Peterson Ave., Chicago 45, Ill.

Bins (bulk storage), Racks (pallet, storage, dies, skids, bulk).

**Representatives**  
Calif., Los Angeles—Andrew Co., 2479 Fletcher Dr. NO 4-1149  
Calif., Los Angeles—M. E. Canfield Co., 419 E. Third St. MA 6-6606  
Calif., Los Angeles—Green-Penny Co., 421 E. Washington Blvd. RI 9-9196  
Calif., Oakland—Green-Penny Co., 2211 San Pablo Ave. GL 1-8555

### SULLIVAN, ED, EQUIPMENT ENGI- NEERING SERVICES, 672 So. Lafa- yette Park Pl., Los Angeles 57, Calif. DU 7-8521

Baskets (wire, plastic), Bins (wire), Tote boxes (plastic), Racks (pallet, storage, other), Slings (wire rope), Trailers (house), Trucks (die handling, dolly, sheet handling, skid handling), Missile handling equipment.

See advertisement on page 196

### SWING SHIFT MANUFACTURING CO., P. O. Box 957, Longview, Wash.

Trucks (electric fork, gasoline fork), Swinging and Shifting hydraulic fork control for industrial lift trucks. Company also manufactures a line of Side Shifting Units for lift trucks.

**Branches**  
Ore., Rainier—Water St. Phone 6-4411  
**Representatives**  
(Sold and serviced through most Western fork lift truck distributors.)

### SYNTRON CO., 875 Lexington Ave., Homer City, Pa.

Conveyors (vibrating), Vibrators (bin, hoppers, chutes).

**Branches**  
Ariz., Tucson—R. W. Bartley, 2144 No. Campbell Ave. Phone 5-2291  
Calif., San Francisco—59 30th St. AT 8-1162  
Calif., South Gate—8413 State St. LO 7-1457  
Colo., Denver—Krippner & Polley, 1166 Elati St. AL 5-1059  
Utah, Salt Lake City—353 W. Fourth So. St. EL 9-7363  
Wash., Seattle—15223 Eighth Ave. So. CH 6250

### TALLER & COOPER, INC., 75 Front St., Brooklyn 1, N. Y.

Scales (automatic, counting, warehouse).

**Branch Office**  
Calif., Menlo Park—481 La Mesa Dr.  
**Representatives**  
Calif., Los Angeles—F. Somers Peterson Co., 1501 Maple Ave. RI 9-6151  
Calif., San Francisco—F. Somers Peterson Co., 157 13th St. MA 1-2255  
Colo., Denver—Peterson Co., 4949 Colorado Blvd.

### TAYLOR MFG. CO., 2114-24 W. Ball Rd., Anaheim, Calif. KE 5-6021

Carts (hand, push, electric), Trucks (industrial electric, personnel).

**Representatives**  
Calif., Altadena—Meadows Bros., 3184 No. Lake. SY 7-1171  
Calif., San Diego—A. H. Kalisch, 3676 Fairmount. TA 6616  
Calif., San Francisco—Elder & Co., 390 Seventh St. UN 1-5480

### TECHNIBILT CORP., 905 Air Way, Glendale 1, Calif.

Baskets (wire), Carts (hand and push, nesting wire basket), Casters, Scales (counting, portable, warehouse), Trucks (factory and warehouse, hand), Wheels (hand truck, rubber tired).

**Branches**  
Ariz., Glendale—4913 W. Highland Ave. YE 7-8085  
Calif., San Carlos—715 Old County Rd. LY 3-9407  
Calif., Glendale—905 Air Way. CH 5-2338

### TEMPLETON, KENLY & CO., 16th and Gardner Rd., Broadview, Ill.

Jacks (hydraulic, lift, screw, other).

**Branches**  
Calif., Concord—Wm. H. Zepp, 720 Bancroft Rd.  
Calif., Los Angeles—c/o William S. Pine, 1635 E. 22nd St.

**Representatives**  
Ariz., Phoenix—Pratt-Gilbert Hardware Co., 701 So. Seventh St.  
Calif., Bakersfield—Hopper Machine Works, Inc., 301 26th St.  
Calif., Long Beach—American Wholesale Hardware Co., 1500 W. Anaheim  
Calif., Los Angeles—California Hardware Co., 500 E. First St.  
Calif., Los Angeles—Ducommun Metals & Supply Co., 4890 So. Alameda St.  
Calif., Los Angeles—Fornaciari Co., 5350 E. Washington Blvd.  
Calif., Los Angeles—Oil Well Supply Co., 4900 Santa Fe Ave.  
Calif., Los Angeles—Republic Supply Co. of California, 2600 So. Eastland Ave.  
Calif., Los Angeles—J. G. Tucker & Son, 455 E. Third St.  
Calif., Los Angeles—Union Hardware & Metals Co., 5555 Ferguson Dr.  
Calif., Sacramento—L & G Specialties, 910 D St.  
Calif., San Diego—Gould Hardware & Machinery Co., 2212 Main St.  
Calif., San Diego—Western Metal Supply Co., 215 Seventh Ave.  
Calif., San Francisco—Edward R. Bacon Co., 2101 Folsom St.  
Calif., San Francisco—C. H. Bull Co., 115 Tenth St.



## THERMOID - TOWNER

Calif., San Francisco—A. J. Giesener Co., 975 Bryant St.  
 Calif., San Leandro—Republic Supply Co. of California, 1919 Williams St.  
 Calif., Torrance—National Supply Co. of California, 1524 Border Ave.  
 Colo., Denver—Mine & Smelter Supply Co., 17th and Blake Sts.  
 Idaho, Boise—Intermountain Equipment Co., Broadway and Myrtle Sts.  
 Mont., Billings—Great Northern Tool & Supply Co., 2224 Minnesota Ave.  
 Mont., Butte—Hall-Perry Machinery Co., 802 E. Iron St.  
 Mont., Butte—Montana Hardware Co., 828 So. Montana St.  
 Mont., Great Falls—Carl Weissman & Sons, Inc., 300 Third Ave.  
 Mont., Kalispell—Westmont Tractor & Equipment Co., 55 Third Ave., N. E.  
 N. Mex., Albuquerque—Contractors Equipment & Supply Co., 707 Broadway, N. E.  
 N. Mex., Albuquerque—R. L. Harrison Co., Inc., 1801 Fourth St., N. W.  
 N. Mex., Albuquerque—J. Korber & Co., 200 Second St., N. W.  
 N. Mex., Carlsbad—Union Industrial Corp., 112 E. Mermod St.  
 Nev., Reno—Sierra Machinery Co., 397 Morrell Ave.  
 Ore., Astoria—Fisher Brothers Co., 1210 Marine Dr.  
 Ore., Corvallis—Roesser's Hardware Co., 340 So. Second St.  
 Ore., Portland—J. E. Haseltine & Co., Second Ave. and Ash St.  
 Ore., Portland—Nelson Equipment Co., 5251 S. E. McLoughlin Blvd.  
 Utah, Salt Lake City—Mine & Smelter Supply Co., 121 W. Second St.  
 Utah, Salt Lake City—Industrial Supply Co., 121 Social Hall Ave.  
 Wash., Seattle—Glenn Carrington Co., 91 Columbia St.  
 Wash., Seattle—Campbell Industrial Supply Co., 8433 Airport Way  
 Wash., Seattle—Clyde Equipment Co., 3410 First Ave.  
 Wash., Seattle—Peterson Wholesale Hardware Co., 5422 Shilshole Ave.  
 Wash., Seattle—Seattle Hardware Co., 501 First Ave.  
 Wash., Seattle—Star Machinery Co., 241 Lander St.  
 Wash., Spokane—Intermountain Equipment Co., 611 E. Sprague Ave.  
 Wash., Spokane—Towne Equipment Co., 622 No. Montor St.  
 Wash., Tacoma—Hunt & Mottet Co., 2112 Pacific Ave.  
 Wash., Yakima—Yakima Hardware Co., 226 So. First Ave.

### THERMOID CO., Trenton, N. J.

Belt (conveyor, elevator, endless), Slings (belt).  
*Branches*  
 Calif., Los Angeles—1100 So. Santa Fe Ave. TR 8608  
 Calif., San Francisco—544 Second St. YU 2-4141  
 Colo., Denver—724 W. Colfax St. CH 4-2300  
 Ore., Portland—3939 N.W. St. Helens Rd. CA 2-9765  
 Utah, Nephi—Thermoid Western. Phone 424W

*Representatives*  
 Calif., Los Angeles—H. J. Klier, 1100 So. Santa Fe Ave. TR 8608  
 Calif., Mt. View—R. H. Nielson, 13158 Dierlex Dr. YO 7-0211  
 Calif., North Hollywood—J. W. Beard, 11723 Otsego St. ST 7-6174  
 Calif., San Francisco—G. J. Klier, 3080 Jackson St. JO 7-9975  
 Calif., San Francisco—O. J. Sand, 544 Second St. YU 2-4141  
 Calif., West Covina—J. W. Minnock, 1258 So. Butterfield Rd. ED 2-7346  
 Colo., Denver—Roy Wanamaker, 446 Cook St. DU 8-2349  
 Ore., Portland—Gordon Sodorff, 3939 N.W. St. Helens Rd. CA 2-9765  
 Utah, Salt Lake City—R. H. Hancock, 957 So. Eighth St. EL 9-2579  
 Wash., Seattle—H. W. Hobbs, 3021 E. 135th St. EM 0024

### TERN MACHINE CO., 3760 W. Fourth St., Winona, Minn.

Hoists (chain, lever), Truck (hand lift), Winches and Windlasses.

*Representatives*  
 Ariz., Phoenix—Reading, Overstreet, P. O. Box 2406  
 Calif., Oakland—Denham Sales Service, 293 26th St.  
 Ore., Eugene—King Vanderbilt Sales Co., 48 18th Ave., W.  
 Utah, Ogden—H. S. Locke & Associates, P. O. Box 1282

### THEW SHOVEL CO., E. 28th St. & Fulton Rd., Lorain, Ohio

Cranes (yard, truck, tractor), Loaders (portable, self-propelled), Shovels, Scoop shovels, Clamshells, Draglines.

*District Sales Managers*  
 Calif., San Francisco—1660 Russ Bldg. YU 6-1928  
 Ore., Portland—5217 N. E. 35th Pl. GA 7255

*Representatives*  
 Ariz., Phoenix—Lee Redman Equipment Co., 610 So. 19th Ave.  
 Calif., Los Angeles—Santa Fe Equipment Co., 3090 Santa Fe Ave.  
 Calif., San Bernardino—Santa Fe Equipment Co., 867 Colton Ave.  
 Calif., San Francisco—Coast Equipment Co., 444 Eighth St.  
 Colo., Durango—McCoy Co.  
 Colo., Denver—McCoy Co., 6000 Colorado Blvd.  
 Colo., Grand Junction—McCoy Co., P. O. Box 153

Colo., Pueblo—McCoy Co., 214 E. Ilex  
 Colo., Sterling—McCoy Co., P. O. Box 871  
 Idaho, Boise—Southern Idaho Equipment Co., 204 E. Myrtle St.  
 Idaho, Idaho Falls—Southern Idaho Equipment Co., P. O. Box 1181  
 Idaho, Twin Falls—Southern Idaho Equipment Co., 129 Washington St. No.

Mont., Billings—Nash-Davis Machinery Co., 509 No. 27th St.  
 Mont., Bozeman—Nash-Davis Machinery Co., 109 No. House St.  
 Mont., Glasgow—Tractor & Equipment Co., P. O. Box 547  
 Mont., Great Falls—Central Machinery Co., 721 Second St. So.  
 Mont., Havre—Central Machinery Co., P. O. Box 1231

Mont., Kalispell—Mountain Tractor Co., Third Ave. E and Railroad  
 Mont., Lewistown—Central Machinery Co., First Ave. No. and Evelyn St.  
 Mont., Miles City—Tractor & Equipment Co., P. O. Box 60  
 Mont., Missoula—Mountain Tractor Co., 1846 W. Broadway  
 Mont., Sidney—Tractor & Equipment Co., 201 No. Central

Nev., Reno—General Equipment Co., 1501 E. Second Ave.  
 N. Mex., Albuquerque—New Mexico Equipment Co., 2222 Broadway E.  
 Ore., Eugene—Interstate Tractor & Equipment Co., P. O. Box 192  
 Ore., Portland—Interstate Tractor & Equipment Co., 2855 N.W. Front Ave.  
 Utah, Salt Lake City—Atlas Equipment Co., 1411 So. Redwood Rd.

Wash., Seattle—A. H. Cox & Co., 1757 First Ave. So.  
 Wash., Spokane—Andrews Equipment Service, 126 So. Walnut St.  
 Wash., Tacoma—A. H. Cox & Co., 2015 Center St.

Wyo., Casper—Wortham Machinery Co.  
 Wyo., Cheyenne—Wortham Machinery Co., 511 W. 17th St.  
 Wyo., Greybull—Nash-Davis Machinery Co., Sixth and Eighth Sts.  
 Wyo., Sheridan—Wortham Machinery Co.  
 Wyo., Rock Springs—Wortham Machinery Co.

### THISTLE ROLLER & MFG. CO., 2419 So. Connor St., Los Angeles, Calif. AN 2-2108

Rollers (conveyor, other), Rubber bonding, Wheels (general industrial).

*Branch*  
 Calif., Walnut Creek—21 Boulevard Ct. YE 5-5962

### THOMAS TRUCK & CASTER CO., 1830 So. Seventh St., Keokuk, Iowa

Casters, Jacks (lift), Skids, Tires (industrial truck and trailer), Trailers (factory and warehouse), Trucks (bag, barrel, drum, box type, dolly, factory and warehouse, hand), Wheels (general industrial, hand truck, rubber tired, trailer).  
*Representatives*  
 Calif., Los Angeles—W. T. Billard, Inc., 734 E. Third St. MI 2659  
 Calif., San Francisco—Warehouse Equipment & Supply, 634 Polk St. PR 5-3766  
 Ore., Portland—Pacific Northwest Agents, 646 N. Thompson. AT 4-7950  
 Wash., Seattle—Pacific Northwest Agents, 1016 First Ave. So. EL 5006  
 Wash., Spokane—Standard Cycle & Supply, 1811 E. Sprague Ave. LA 1821

### THOR POWER TOOL CO., 175 N. State St., Aurora, Ill.

Hoists (air).  
*Branches*  
 Calif., Los Angeles—6200 Slauson Ave. RA 2-3191

Calif., San Francisco—315 S. Van Ness Ave. UN 1-2045  
 Colo., Denver—2704 W. Eighth Ave. AL 3648  
 Wash., Seattle—611 E. Pike St. CA 5000

### TOLEDO SCALE CO., 1105 Telegraph Road, Toledo 1, Ohio

Scales (automatic, conveyor, counting, monorail, packaging, portable, warehouse, motor truck).

*Branches*  
 Calif., Los Angeles—1115 So. Hope St.  
 Calif., Oakland—2600 West St.  
 Calif., San Francisco—1665 Hudson St.  
 Ore., Portland—1405 S.W. Fourteenth Ave.

*Representatives*  
 Ariz., Phoenix—H. E. Eash, 2342 W. Buckeye Rd.  
 Ariz., Tucson—P. W. Henry, 3365 No. Stone Ave.

Calif., Fresno—L. I. Baker, Jr., 917 N St.  
 Calif., Sacramento—Albert O. Fiske, 3419 Broadway  
 Calif., San Diego—Robert R. Perry, 2020 Market St.  
 Calif., San Jose—C. L. Coon, 333 Prevost St.  
 Calif., Santa Rosa—A. N. Nicholson, 305 Sebastopol Ave.  
 Calif., Stockton—John L. Sullivan, 1435 E. Miner Ave.

Colo., Denver—D. D. Crow, 1942 Arapahoe St.  
 Idaho, Boise—D. M. Dove, 3011 State St.  
 Mont., Billings—H. Beckerlin, 1104 N. 26th St.  
 Mont., Butte—R. A. Morgan, 3616 Ottawa St.  
 Mont., Great Falls—M. C. Anderson, 3415 Second Ave. No.  
 Nev., Reno—Ray Seher, 140 Vesta St.  
 N. Mex., Albuquerque—O. C. Bare, 4100 Edith St., N.E.

Utah, Salt Lake City—R. J. Davis, 155 E. First St.  
 Wash., Seattle—M. D. Morgan, 415 Bell St.  
 Wash., Spokane—D. C. Anderson, 211 W. Trent St.  
 Wash., Yakima—L. D. Riley, 105 So. First St.

### TON-TEX CORP., 247 Pearl St., N. W., Grand Rapids 2, Mich.

Belt (composition, conveyor, fabric, canvas, elevator, endless), Belt fasteners, Belt lacing, Slings (belt, canvas).

*Branch*  
 Calif., San Jose—759 W. San Carlos. CY 8-3290

### TOTE SYSTEM, INC., 700 So. Seventh St., Beatrice, Neb.

Bins, Tote boxes.  
*Representatives*  
 Calif., Pasadena—Empire Engineering Co., 885 E. Green St. RY 1-6178  
 Colo., Denver—Francis & Sims, 2855 W. Eighth St. AL 5-1781  
 Wash., Seattle—Masterson's Equipment Supply, 2760 Westlake No. GA 0245

### TOWMOTOR CORP., 1226 E. 152nd St., Cleveland 10, Ohio

Yard cranes, Tractors (diesel, gasoline warehouse), Trucks (bag, barrel, drum, box type, die handling, elevating and lifting, factory and warehouse, diesel fork, gasoline fork, hand motorized, gasoline lift, hand-electric lift, pallet, sheet handling, skid handling, other)

See advertisement on page 29

*Branch*  
 Calif., Oakland—699 Fourth St. TW 3-3668

*Representatives*  
 Calif., Fresno—Valley Forklift Rental & Equipment Co., 2424 So. Railroad. Phone 8-2074  
 Calif., Los Angeles—Irving G. King & Co., 821 Mateo St. TU 3176  
 Colo., Denver—Case Material Handling, 3901 Walnut. AL 5-3984

N. Mex., Albuquerque—E. D. Flournoy Co., 217 Sixth St. S. W. Phone 3-1055  
 Ore., Portland—Air-Mac, Inc., 1435 S. E. Union. FI 4624  
 Utah, Ogden—The Horsley Co., 2416 Grant Ave. Phone 2-1847  
 Wash., Seattle—Air-Mac, Inc., 3838 Fourth Ave. So. MU 3388  
 Wash., Spokane—Air-Mac, Inc., of Wash., 2710 Trent Ave. KE 5-2005  
 Wash., Tacoma—Air-Mac, Inc., of Wash., 1003 Washington Bldg. BR 1605  
 Wash., Yakima—Air-Mac, Inc., of Wash., 313 No. Grandview. Phone 2-1552

### TOWNER MANUFACTURING CO., 2111 West 17th St., Santa Ana, Calif.

Towner tow system of palletized transportation.



**TRACTOMOTIVE CORP., County Line Rd., Deerfield, Ill.**

Leaders (portable, self propelled), Tractors (diesel, gasoline warehouse).

**Representatives**

Ariz., Phoenix—Neil B. McGinnis Equipment Co., 500 So. Central Ave. AL 8-5391  
 Calif., Bakersfield—San Joaquin Tractor Co., 1201 Union Ave. FA 4-4517  
 Calif., Eureka—Aikins Tractor Co., 2016 Broadway. HI 2-2986  
 Calif., Los Angeles—Shaw Sales & Service Co., 5100 Triggs St. AN 1-7141  
 Calif., Redding—Shasta Truck & Equipment Sales, P. O. Box 985, Phone 47  
 Calif., Sacramento—Industrial Tractor Sales, 903 Del Paso Blvd. WA 5-3525  
 Calif., San Diego—Shaw Sales & Service Co., 2175 Newton Ave. FR 9-4145  
 Colo., Denver—Power Equipment Co., 3440 Brighton Blvd. KE 4-4221  
 Idaho, Boise—Southern Idaho Equipment Co. of Boise, Inc., 204 E. Myrtle. Phone 3-6409  
 Idaho, Idaho Falls—Southern Idaho Equipment Co., No. Yellowstone Hwy. Phone 2810  
 Mont., Billings—Seits Machinery Co., 420 No. 24th St. Phone 2-2103  
 Mont., Missoula—Mountain Tractor Co., 1645 W. Broadway. Phone 6-6551  
 Mont., Sidney—Richland Machinery Co., 402 E. Morrill St. Phone 518  
 Nev., Elko—A-D Machinery Co., 251 W. Commercial. Phone 92  
 Nev., Reno—Reno Equipment Sales Co., 1510 W. Fourth St. Phone 2-7025  
 N. Mex., Albuquerque—Harry Cornelius Co., 1510 Second St. Phone 3-1776  
 N. Mex., Roswell—Smith Machinery Co., 512 E. Second St. MA 2-1812  
 Ore., Medford—Haupter Tractor Co., 3510 No. Pacific Hwy. 2-5279  
 Ore., Portland—Wood Tractor Co., 1033 S.E. Main St. VE 3135  
 Ore., Springfield—Timber Tractor Co., 2600 Main St. RI 7-2724  
 Utah, Salt Lake City—Cate Equipment Co., 49 E. Ninth St. St. Phone 9-2021  
 Wash., Seattle—Pacific Hoist & Derrick Co., 3200 Fourth Ave. So. EL 1560  
 Wash., Spokane—American Machine Co., 1026 W. Broadway. FA 2591  
 Wash., Wenatchee—Mid-State Equipment Co., 313 No. Mission St. NO 2-7151  
 Wyo., Casper—Studer Tractor & Equipment Co., P.O. Box 779. 2-5381

**TRANSITIER TRUCK CO., 5475 No. Lagoon Ave., Swan Island, Portland 11, Ore. BU 5-4519**

Trucks (gasoline fork, gasoline lift).

**Representatives**

Calif., Los Angeles—W. T. Billard, Inc., 734 E. Third St. MI 2659  
 Calif., South San Francisco—Hamerslag Equipment Co., 110 Freeway Blvd. JU 6-1789  
 Colo., Denver—L. G. Rathbun Co., 1414 16th St. TA 3462  
 Utah, Salt Lake City—Heiner Equipment Co., 501 W. Seventh St. EM 3-3979

**TRUCK-MAN DIV., THE KNICKER-BOCKER CO., 603 Liberty St., Jackson, Mich.**

Trucks (fork, gasoline; pallet; skid handling).

**Representatives**

Ariz., Phoenix—Material Equipment Supply Co.  
 Calif., Los Angeles—Material Equipment Supply Co., 1358 So. Grand Ave.  
 Colo., Denver—Plant Equipment Co., 1400 Market St.

**TUBE-STRUT DIV., TUBULAR STRUCTURES CORP. OF AMERICA, 2960 Marsh St., Los Angeles 39, Calif.**

Racks (pallet, storage, other), Pipe clamps.

See advertisement on page 115

**Representatives**

Ariz., Phoenix—Waco Scaffold & Equipment Co., 2405 E. Jackson. BR 5-4561  
 Calif., Los Angeles—Green-Penny Co., 421 E. Washington Blvd.  
 Calif., Los Angeles—Material Equipment Supply Co., 1358 So. Grand Ave.  
 Calif., Oakland—Green-Penny Co., 2211 San Pablo Ave. GL 1-8555  
 Calif., South San Francisco—Hamerslag Equipment Co., 110 Freeway Blvd.  
 Colo., Denver—Murray Sales Co., 16 Wazee Market. KE 4-5296

Ore., Portland—Hallidie Machinery Co., 1915 N.E. Union. BE 4-7491  
 Wash., Seattle—Hallidie Machinery Co., 210 Hudson St.

**TUBULAR STRUCTURES CORP. OF AMERICA, 2960 Marsh St., Los Angeles 39, Calif.**

Elevators (portable tiering), Hoists (portable).

**Representatives**

Ariz., Phoenix—Waco Scaffold & Equipment Co., 2405 E. Jackson. BR 5-4561  
 Calif., Fresno—Ray J. Wayne Co., 1869 Hedges Ave.  
 Calif., Los Angeles—Waco-May Co., 2960 Marsh St. NO 3-3921  
 Calif., San Diego—Southern Equipment & Supply Co., 2025 E. Harbor Dr. BE 2-6123  
 Calif., San Francisco—Lawrence Myers & Co., 61 Bluxome St. DO 2-3715  
 Calif., Stockton—Waco Scaffold & Equipment Co., 2092 So. El Dorado. Phone 5-0216  
 N. Mex., Albuquerque—New Mexico Equipment Co., 2222 So. Broadway. Phone 3-5576  
 Wash., Seattle—Middleman Corp., 3416 Interlake  
 Wash., Spokane—Ferris Equipment Co., E. 3823 Trent Ave. KE 0651

**TULSA WINCH DIV., VICKERS, INC., 815 E. First St., Tulsa 20, Okla.**

Winches and Windlasses, Power take-offs.

**Representatives**

Ariz., Phoenix—Welch Mfg. Co., 533 W. Jefferson. AL 8-0276  
 Calif., Los Angeles—Standard Auto Body Co., 4900 So. Soto St. LO 8-1471  
 Calif., Lynwood—Rankin Brothers, 11090 So. Alameda. NE 6-1929  
 Calif., Perkins—Clarks Welding Works, Folsom Blvd. at Perkins. HI 5-2714  
 Calif., San Francisco—Modern Vehicle Co., 2044 Bryant St. AT 2-7414  
 Colo., Denver—The Winter Weiss Co., 2201 Blake St. MA 3-6233  
 Idaho, Boise—The Lang Co., 420 No. Curtis Rd. Phone 3811-W  
 Mont., Great Falls—Smith Equipment Co., 820 Ninth St. No. Phone 2-1713  
 Mont., Kalispell—Industrial Supply Div., Forest Products Co., 175 N. E. Railroad St. Phone 5900  
 N. Mex., Albuquerque—M & F Equipment Co., 824 Arno N.E. 3-3793  
 N. Mex., Hobbs—Watson Truck & Supply, P. O. Box 1238. Phone 3-3161  
 Ore., Eugene—Western Equipment Co., 1360 W. First St. EU 4-4265  
 Ore., Portland—Western Equipment Co., 2244 N.W. Savier St. AT 4128  
 Utah, Salt Lake City—The Lang Co., First So. and Second W. DA 8-3341  
 Wash., Seattle—Transport Trailer & Equipment Co., 3400 Sixth Ave. So. MU 2226  
 Wash., Spokane—Andrews Equipment Service, 126 So. Walnut. MA 3155  
 Wyo., Casper—Emrick & Hill Engine & Equipment Co., 1701 E. Yellowstone. Phone 2-5341

**TUTHILL PUMP CO., 939 E. 95th St., Chicago 19, Ill.**

Pumps (rotary).

**Representatives**

Calif., San Francisco—Westco Pump Sales Co., 85 Industrial St. VA 6-5104  
 Calif., Los Angeles—Wagner Hydraulic Equipment Co., 10633 Wellworth Ave. BR 2-2091  
 Colo., Denver—Equipment Specialties Co., 171 Valjejo St. SH 4-2738  
 Wash., Seattle—Atlas Equipment Co., 620 Maynard Ave. MU 6232

**UHRDEN, INC., 508 Grand St., Denison, Ohio**

Hydraulic dumpers, Hydraulic floor and truck cranes, Power stackers, Manually operated stackers, Portable elevators, Hand trucks.

**Representatives**

Calif., Los Angeles—Irving G. King & Co., 821 Mateo St.  
 Calif., San Francisco—Stryco Mfg. Co., 470 Natoma St.

**UNION METAL MFG. CO., THE, 1432 Maple Ave. N.E., Canton 5, Ohio**

Skid Boxes and platforms, Boxes for shipping (steel), Boxes (tote), Pallets.

**Representatives**

Ariz., Phoenix—Kistler Ind. Service, 902 So. Central Ave. AL 2-7217  
 Calif., Los Angeles—W. T. Billard, Inc., 734 E. Third St. MI 2659  
 Calif., Los Angeles—Pacific Union Metal Co., Terminal Annex. AD 4-0183

Calif., Oakland—Roll-Rite Corp., 801 Jefferson St. GL 1-5921  
 Colo., Denver—Hahn Equip. Co., 1745 Blake St. KE 4-5500  
 Ore., Portland—F. E. Bennett Co., 426 N.W. Sixth Ave. CA 8-2321  
 Utah, Salt Lake City—Modern Equip. Co., 52 W. Second St. EL 9-2171  
 Wash., Seattle—E. C. Hanselbacher & Co., 92 Battery St. EL 0560

**UNION STEEL PRODUCTS CO., Berrien St., Albion, Mich.**

Baskets (metal, wire), Boxes for shipping (wire), Conveyors (chain or link), Pallets (wire), Racks (storage, storage container).

**Representatives**

Ariz., Phoenix—Naumann Lift, 2308 So. 11th Ave. AL 8-8951  
 Calif., Fresno—Gray Lift, P. O. Box 1066. Phone 6-0169  
 Calif., Los Angeles—R. H. Braun Co., 5519 Jilison St. RA 3-6381  
 Calif., San Francisco—Western Ind. Equipment Co., 420 Market St. SU 1-4757  
 Wash., Seattle—Air-Mac, Inc., 3585 Fourth Ave. So. MU 3388

**UNION WIRE ROPE CORP., 21st and Manchester Ave., Kansas City 26, Mo.**

Slings (wire rope), Wire Rope.

**Branch**

Calif., Sacramento—903 Del Paso Blvd. WA 5-6124

**UNISTRUT PRODUCTS CO., Washington Blvd., Chicago 7, Ill.**

Racks (pallet, storage, other).

**Branch**

Calif., Beverly Hills—P.O. Box 3291, Olympic Station. BR 2-6203

**Representatives**

Ariz., Phoenix—Western Specialty Co., 18 E. Lincoln St. AL 4-1366  
 Calif., Berkeley—Unistrut Sales of No. Calif., 1000 Ashby Ave. TH 3-4964  
 Calif., Los Angeles—Glenmatt Co., 6440 E. Corvette St. RA 3-8221  
 Calif., Sacramento—A. W. Herron Co., 215 12th St. GI 3-4621  
 Colo., Denver—Landes, Zachary & Peterson, 275 Kalamath St. MA 6203  
 Colo., Grand Junction—Landes, Zachary & Peterson, 2701 So. Hwy. 50. Phone 1609  
 Mont., Helena—Builders Supply Co., P.O. Box 186. Phone 469  
 Ore., Portland—The Brower Co., 1616 N.W. Glisan St. CA 8-3494  
 Utah, Salt Lake City—Pace-Turpin & Co., 726 So. Third W. St. DA 2-5595  
 Wash., Seattle—The Brower Co., 114 Virginia St. MU 0464  
 Wyo., Casper—Landes, Zachary & Peterson, 2421 E. Fourth St. Phone 3-3610

**UNIT MANUFACTURING CO., 1229 Harmon Pl., Minneapolis 3, Minn.**

Cranes (hand power), Hoists (crane, electric, hydraulic, portable), Hydraulic cylinders.

**Representatives**

Ariz., Phoenix—Southwest Truck Body & Equipment, 2214 No. 27th Ave.  
 Calif., Fresno—A & P Body & Tank Distributors, 245 "M" St.  
 Calif., Los Angeles—American Equipment Co., 1461 E. Washington Blvd.  
 Calif., Los Angeles—Jumbo Equipment Co., 1012 So. Los Angeles Ave.  
 Calif., Los Angeles—K & K Body Works, 3045 Verdugo  
 Calif., Oakland—Rickstell Sales Co., 2985 Ford  
 Calif., San Francisco—Heil Equipment Co. of Northern Calif., 999 16th St.  
 Colo., Denver—Truck Equipment Co., 3936 Walnut  
 Idaho, Boise—The Lang Co., Inc., 420 No. Curtis Rd.  
 Idaho, Pocatello—Williamsen Body and Equipment Co., P. O. Box 1285  
 Mont., Billings—H-C-L Equipment Co., 421 No. 20th  
 Mont., Great Falls—H-C-L Equipment Co., P. O. Box 1662  
 Nev., (Covered by California distributors)  
 N. Mex., Albuquerque—Winter-Weiss Co., 6130 No. Second St.  
 Ore., Portland—Schetky Equipment Corp., 1810 S.E. 10th Ave.  
 Utah, Ogden—Truck Equipment Co., 3936 Walnut  
 Wash., Seattle—Nelson Truck Equipment Co., Inc., 128 Westlake No.  
 Wash., Seattle—Tri-Coach Co., 3407 Airport Way  
 Wyo., (Covered by Denver, Colo., distributors)



## U.S. RUBBER — WEST BEND

### UNITED STATES RUBBER CO., MECHANICAL GOODS DIV., Avenue of the Americas, New York, N. Y.

Barrels (rubber, collapsible), Belting (conveyor, fabric, canvas, elevator, endless), Conveyors (belt), Elevators (belt), Tires (industrial truck and tractor).

#### Branches

Calif., Los Angeles—Soto and 46th St. LU 9-3161  
Calif., San Francisco—6025 Third St. MI 8-3783  
Colo., Denver—4800 Colorado Blvd. DU 8-2481  
Ore., Portland—630 N.W. Tenth Ave. CA 7-6571  
Utah, Salt Lake City—160 Social Hall Ave. EM 4-6563  
Wash., Seattle—220 Jackson St. EL 2502

### UNITED STATES STEEL CORP. see COLUMBIA-GENEVA STEEL DIV. see CYCLONE FENCE DEPT., AMERICAN STEEL & WIRE DIV., see GERRARD STEEL STRAPPING DIV.

### UNIVERSAL CRANEHOIST & MONORAIL CO., 634 Sixth St., San Francisco, Calif. MA 1-8841

Conveyors (automatic, chain or link, continuous flow, foundry, overhead, trolley, special), Cranes (gantry, hand power, jib, pillar, swing, bracket, double beam overhead, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, I-beam overhead, locomotive overhead, monorail overhead), Grabs, Grapples, Hoists (chain, crane, electric, hand, monorail, portable, traveling), Magnets, Scales (monorail), Slings (chain, wire rope), Trolleys, Winches and Windlasses.

### UNIVERSAL HOIST CO., 1326 Western Ave., Cedar Falls, Iowa

Conveyors (belt, bucket, continuous flow, drag), Elevators (belt, bucket, continuous flow, other).

#### Representatives

Ariz., Phoenix—Redman Lee Equipment Co., 610 So. 19th St.  
Calif., Los Angeles—L. N. Webster & Co., 4221½ Avocado St.  
Calif., Riverside—Hudson Sales Co., 4905 Arlington Ave.  
Calif., San Francisco—Walter N. Steele Co., 41 Drumm St.  
Calif., San Gabriel—Walter N. Steele Co., 6787 No. Vista St.  
Colo., Denver—Walter N. Steele Co., 1075 Locust St.  
Colo., Denver—Union Supply Co., 5460 Colorado Blvd.  
Colo., Denver—Wagner Mach. & Mill Supply, 4444 York St.  
Idaho, Twin Falls—Walter N. Steele Co., 401 So. Shoshone St.  
N. Mex., Roswell—Carl J. Carlson, 1105 So. Kentucky St.  
Ore., Portland—Reid-Strutt Co., 1015 S.E. Stark St.  
Wash., Spokane—Carter-Miller Mill Furnishing Co., 1324 No. Ash St.

### VAC-U-LIFT CO., P. O. Box 298, Salem, Ill.

Vibrators (vacuum).

#### Representatives

Calif., El Segundo—Hufford Machine Works Inc., 1700 E. Grand Ave. OR 8-6221  
Calif., South Pasadena—Blair-Martin Co., Inc., 1010 Fair Oaks, RY 1-2861  
Wash., Spokane—Air-Mac Inc., E. 3710 Trent Ave. KE 5-2005

### VICKERS, INC., see TULSA WINCH DIV.

### VICTOR BALATA & TEXTILE BELTING CO., 53 Park Pl., New York 7, N. Y.

Belting (composition, conveyor, fabric, canvas, elevator, endless, other), Slings (belt, canvas, other).

#### Representatives

Calif., Los Angeles—Degen-Fiege Co., 4559 E. Sheila St. AN 9-0781  
Calif., San Francisco—Pacific Coast Rubber Co., 51 Main St. EX 2-6963  
Calif., South Pasadena—T. H. Hinchcliffe, P. O. Box 941, CL 6-1348  
Ore., Portland—S. Alex Turnley, 4433 N. E. Failing St. GA 2176

Utah, Salt Lake City—Mountain States Rubber Co., 121 Social Hall Ave. Phone 3-6727  
Wash., Everett—Washington Belting & Rubber Co., 2823 Grand Ave. CE 8111  
Wash., Seattle—Washington Belting & Rubber Co., 2763 First Ave. So. EL 5650  
Wash., Spokane—Nott-Atwater Co., So. 187 Monroe St. MA 4377  
Wash., Tacoma—Washington Belting & Rubber Co., 672 E. 11th St. MA 8158

### VIKING PUMP CO., Fourth and Koch Sts., Cedar Falls, Ia.

Pumps.

#### Branch

Calif., Los Angeles—4432 Long Beach Ave. AD 3-8165

#### Representatives

Calif., Millbrae—DeLaval Pacific Co., 201 E. Millbrae Ave. OX 7-4001  
Colo., Denver—Hendrie-Bolthoff Co., 1635 17th St. KE 4-4111  
Utah, Salt Lake City—Utility Engineers, 630 Dooly Bldg. Phone 3-4682

### WARREN PUMPS, INC., Bridges Ave., Warren, Mass.

Pumps (centrifugal, reciprocating, rotary, screw).

#### Representatives

Calif., Los Angeles—Gil Moore & Co., 947 So. Grand. TR 8287  
Calif., San Francisco—George E. Swett & Co., 100 Howard St. EX 2-6145  
Wash., Seattle—R. L. Dyer, 1218 Third Ave. MA 3441

### WASHINGTON ALUMINUM CO., INC., Knecht Ave. and Pennsylvania Railroad, Baltimore 29, Md.

Boxes (tote), Dock boards, Hoppers, Pallets, Platforms, Racks (pallet), Ramps (loading, etc.), Skids.

#### Representative

Calif., San Francisco—M. J. Gigy & Associates, Inc., 37 California St. YU 6-2803 or LA 4-2889

### WAUKESHA MOTOR CO., W. St. Paul Ave., Waukesha, Wis.

Engines (gas, gasoline, diesel).

#### Branch

Calif., Los Angeles—4927 Pacific St.

#### Representatives

Calif., Emeryville—Waukesha Pacific Equipment Co., 1310 66th St.  
Calif., Eureka—B & S Supply Co., 813 Whipple  
Calif., Los Angeles—Frazier Wright Co., 2315 So. Hill St.

### WAYNE MFG. CO., see AUTOETTE DIV.

### WAYNE PUMP CO., THE, Herbert, Riverbend and Griffin Sts., Fort Wayne 4, Ind.

Dock levelers, Truck levelers, Straight platform lifts (single and two post), Portable dock levelers, Truck service lifts, Cross-over bridges, Rotary gear pumps.

#### Representatives

Calif., El Monte—Engineering Products Co., 3350 No. Gilman Rd.  
Colo., Denver—Urban M. Lodge, P. O. Box 8386, University Park Station  
Utah, Ogden—Geo. W. Goddard, Inc., 2424 Wall Ave.  
Wash., Seattle—Hallidie Machinery & Equipment Co., 210 Hudson St.

### WEBB, JERVIS B., CO. OF CALIF., 9301 Rayo Ave., South Gate, Calif.

Conveyors (apron, automatic, belt, bucket, chain or link, continuous flow, drag, flight, foundry, overhead, pallet, trolley, vertical).

See advertisement on pages 35 & 36

#### Branches

Calif., San Francisco—2166 Market St. KL 2-2709  
Utah, Salt Lake City—52 W. Second South St. EL 9-2171  
Wash., Seattle—P. O. Box 4086, Magnolia Station. MU 1058

WEBB, JERVIS B., CO. OF CALIF., see also SPANMASTER CRANE DIV.

### WEBER MARKING SYSTEMS DIV., WEBER ADDRESSING MACHINE CO., INC., 218 E. Prospect, Mount Prospect, Ill.

Machines, Handprinters and stenciling systems for addressing and marking labels, Tags and cartons.

#### Representatives

Calif., Los Angeles—Cal-State Distributors, 646 W. Florence. PL 2-7141  
Calif., San Francisco—Shannon Mason, 2690 44th Ave. LO 4-2654  
Colo., Denver—Wehrmeyer Printing Co., 770 Acoma St. CH 4-6617  
Wash., Seattle—Equipment Supplies Inc., 528 Frist Ave., So. SE 7796

### WEHLE CONVEYOR CO., 25-27 Washington St., Binghamton, N. Y.

Conveyors (bag and bale, chain or link, pallet, floor to floor).

#### Representatives

Calif., Lynwood—J. W. Lafferty Co., 11371 So. Atlantic Ave.  
Calif., San Francisco—Ira G. Perin Co., 575 Howard Ave. GA 1-1827

### WEIGH RIGHT AUTOMATIC SCALE CO., Mills Rd., Joliet, Ill.

Conveyors (bucket, belt, continuous flow, right, automatic), Elevators (belt, bucket, continuous flow), Scales (packaging).

#### Representatives

Calif., Los Angeles—Watts King Co., 2205 Pasadena Ave. CA 2-5101  
Calif., San Francisco—Food Equipment & Supply Co., 210 Mississippi St. HE 1-8162  
Colo., Denver—Halsell Brokerage Co., 3101 Walnut St. TA 5-8798  
Ore., Portland—Duncan Equipment, 103 Regal Bldg. AT 4107  
Wash., Seattle—Duncan Equipment Co., 506 Broadway. EA 3838

### WELLINGTON MACHINE CO., 133 De Wolf St., Wellington, Ohio

Carts, Casters, Trucks (bag, barrel, drum, box type, die handling, dolly, elevating or lifting factory and warehouse, hand, hand lift, hand-mechanical lift, paper roll, other), Wheels (general industrial, hand truck, rubber tired).

#### Representatives

Calif., Los Angeles—Davis Material Handling Co., 5649 Alhambra Ave. CA 2-7197  
Colo., Denver—J. D. Whiting, P. O. Box 3382, GR 2134  
Ore., Portland—John W. Negur Co., 3005 N.E. Sandy Blvd. GA 7296  
Ore., Portland—Oregon Handling Equipment Co., 2949 N. W. St. Helens Rd. AT 4196  
Wash., Seattle—R. H. Brown Co., 502 First Ave. So. SE 0707

### WEST BEND EQUIPMENT CORP., 307 Water St., West Bend, Wis.

Conveyors (belt), Elevators (barrel, continuous flow, portable, freight), Racks (pallet, storage), Stackers (portable electric, portable hand), Tables (elevating), Trailers (factory and warehouse), Trucks (bag, barrel, drum, box type, die handling, dolly, elevating or lifting, factory and warehouse, hand, hand lift, hand-mechanical or jack-type lift, hydraulic lift, pallet, sheet handling, skid handling), Wheels (hand truck, rubber tired).

See advertisement on page 196

#### Representatives

Calif., Pomona (Southern California, Arizona, Nevada)—Keville Industrial Service, 1890 Ganey Place. LY 2-3977  
Calif., San Francisco—P. F. O'Donnell Co., 2298 Jerrold. AT 8-6362  
Colo., Denver—Urban M. Lodge, 2689 So. Jackson St. AL 5-6127  
N. Mex., Albuquerque—Stryco Sales, Inc., 312 Industrial, N. E. Phone 4-6048  
Ore., Portland—Hallidie Machinery Co., 1645 S.E. Union St. FI 7491  
Utah, Salt Lake City—Equipment Supply Co., 16 Post Office Pl. Phone 3-9074  
Wash., Seattle—Preston Faller Co., 1921 Minor Ave. MA 4256  
Wash., Spokane—Preston Faller Co., E. 4324 Trent. KE 9378  
Wash., Tacoma—Preston Faller Co., So. 19th and Jefferson. BR 1573  
Wash., Yakima—Preston Faller Co., 108 So. Fourth Ave. Phone 6663



## WEST COAST MACHINERY, INC., 1801 Charter Way, Stockton, Calif.

Trucks (gasoline fork, gasoline, gas-electric).  
*Representatives*  
Calif., Los Angeles—L. J. Lutz Co., 7962 Salt Lake Ave.  
Calif., Oakland—Bay Cities Equipment, 2792 Cypress St.  
Colo., Denver—Hahn Equipment Co., 1795 Sheridan Blvd.  
Idaho, Pocatello—City Motor Co., 510 So. Main St.  
Ore., Portland—Hallidie Machinery Co., 1915 N.E. Union

## WESTERN GEAR CORP., P. O. Box 182, Lynwood, Calif.

Trucks (motorized hand micro lever), Winches and Windlasses.

See advertisement on page 100

*Branches*  
Calif., Belmont—P. O. Box 126, LY 3-7611  
Calif., San Francisco—1035 Folsom St. HE 1-6521  
Colo., Denver—865 Lincoln St. KY 4-5513  
Ore., Portland—930 S. E. Oak St. BE 5-3177  
Wash., Seattle—417 Ninth Ave. So. MA 0062

## WHITING CORP., 157th & Lathrop, Harvey, Ill.

Cranes (gantry, hand power, jib, pillar, swing, bracket, electric and electric traveling overhead, foundry overhead, hand power traveling overhead, I beam overhead, monorail overhead), Jacks (screw), Trackmobile (car mover).

*Branches*  
Calif., Norwalk—14420 So. Bloomfield Ave. UN 4-2776  
Wash., Seattle—1326 Fifth Ave. MU 1785

*Representatives*  
Calif., San Francisco—H. E. Botsford Co., 582 Market St. EX 2-0370  
Calif., Los Angeles—James P. Kinney Co., 5141 Anaheim Telegraph Rd. AN 9-7411  
Calif., San Francisco—Walter Dankas & Co., 1485 Bayshore Blvd. DE 3-6963  
Calif., South Gate—California Crane & Equipment Corp., 10928 Vulcan St. LO 9-7108  
Colo., Denver—C & M Industries, Inc., 200 48th Ave. AL 5-1758  
Colo., Denver—Murray Sales Co., 16 Wazee Market KE 4-5296  
Colo., Denver—Peterson Co., 4949 Colorado Blvd. DE 3-5434  
Ore., Portland—Ardies Machinery & Sales, 425 S.E. Ninth Ave. BE 4-7284  
Ore., Portland—Monarch Forge & Machine Works, Inc., 2130 N.W. York St. CA 7-0631  
Utah, Salt Lake City—James J. Burke Co., 422 W. Ninth South. Phone 3-1001  
Wash., Seattle—A. H. Cox Co., 1757 First Ave. So. MA 1121  
Wash., Spokane—General Machinery Co., E. 3590 Riverside Ave. KE 1535  
Wash., Spokane—Union Iron Works, E. 217 Montgomery St. GL 2711  
Wash., Tacoma—Star Iron & Steel Co., 435 E. 11th St. MA 9133

## WHITNEY CHAIN CO., 237 Hamilton St., Hartford 2, Conn.

Chains, Conveyors (chain or link).  
*Branches*  
Calif., Los Angeles—P.O. Box 58454, Vernon Station. LU 7-3151  
Utah, Salt Lake City—1676 E. Forest Hills Dr. Phone 87-5520

*Representatives*  
Calif., Los Angeles—Bearing Sales Co., 1950 So. Olive St.  
Calif., Oakland—Bearing Engineering Co., 1019 Harrison St.  
Calif., San Francisco—Bearing Engineering Co., 1547 Mission St.  
Colo., Denver—Western Belting & Packing Co., 1729 Wazee St.  
Idaho, Idaho Falls—Bearings Service & Supply Co., P. O. Box 562  
Mont., Billings—Bearings Service & Supply Co., 15 No. 31st St.  
Ore., Portland—Northwest Chains & Sprockets, Inc., 123 S.W. Pine St.  
Utah, Salt Lake City—Bearings Service & Supply Co., 1207 So. Main St.  
Wash., Seattle—Northwest Chains & Sprockets, Inc., 3628 E. Marginal Way

## WILKIE CO., THE, 5520 Arch St., Philadelphia 39, Pa.

Telescopic conveyors and "Repower" curves.  
*Representative*  
Calif., Los Angeles—Stanley E. Morris Co., 5584 Alhambra Ave. CA 1-5148

## WIRE AND IRON PRODUCTS INC., 1725 16th St., Detroit 16, Mich.

Baskets (metal and wire), Guard panels for overhead conveyors, Partitions, Enclosures.

*Representatives*  
Calif., San Francisco—Western Industrial Equipment Co., 420 Market St.  
Calif., Santa Ana—Geo. F. Otte, 506 E. Santa Clara. KI 3-1737

## WIRE BELT COMPANY OF AMERICA, 18 River St., Winchester, Mass.

Belting (wire conveyor, processing, encoder type).  
*Representative*  
Calif., San Mateo—C. R. Becker, 3827 Fernwood Ave. FI 5-3996

## JOHN WOOD CO., BENNETT PUMP DIV., Muskegon, Mich.

Petroleum and air dispensing equipment.  
*Branch Offices*  
Calif., Los Angeles—3125 E. Twelfth St. AN 9-1189  
Colo., Denver—1600 So. Quebec St. PL 5-0212  
N. Mex., Albuquerque—2212 First St., N.W. Phone 3-3766  
Utah, Salt Lake City—1077 So. Main St. DA 2-5525  
Wash., Seattle—926 Twelfth Ave. EA 6655

## WOODFORD MANUFACTURING CO., 1626 Delaware Ave., Des Moines 17, Iowa

"Railway" portable steel dock plates.  
*Representatives*  
Calif., South San Francisco—R. K. Whittington, 449 Ferndale Ave.  
Colo., Denver—H. C. Baumgartner, 1401 So. Clarkson. RA 2-8389  
Ore., Portland—E. M. Winter, 2234 N.E. 36th Ave. AT 4-1795  
Tex., El Paso—Marshall R. Elmore & Co., 605 Mills Bldg.  
Utah, Salt Lake City—L. C. Martin, 36 "F" St. EM 4-7075

## WORLEY & CO., 4820 So. Durfee Ave., Pico, Calif. RA 3-3245

Baskets (metal), Bins, Boxes (tote), Racks (storage), Tables (portable).

*Representatives*  
Ariz., Phoenix—Robert G. McKinney, P. O. Box 2483. WH 5-5243  
Calif., Fresno—Healey & Popovich, 1703 Fulton. AM 4-4736  
Calif., San Francisco—Trask & Squier, 39 Natoma St. SU 1-3473  
N. Mex., Albuquerque—George Mayhew, P. O. Box 8301. Phone 5-5585  
Ore., Portland—Allied Building Specialties, 2014 S.E. Ninth Ave. BE 4-6505  
Utah, Salt Lake City—Rex W. Williams & Son, 976 Fourth St. EL 5-6266  
Wash., Seattle—Bryan W. Burtch Co., 2915 First Ave. So. MU 0880  
Wash., Spokane—Fryer Ford Co., 612 Peyton Bldg. MA 4-4453  
Hawaii, Honolulu—H. P. Ross, P. O. Box 54. Phone 542-405

## WRIGHT HOIST DIVISION OF AMERICAN CHAIN & CABLE CO., INC., York, Pa.

Chain Hoists, Electric Hoists, Trolleys, Batchels Hoists, Jib Cranes, Overhead Hand Traveling and Motor Driven Cranes.

*Branch Offices*  
Calif., Los Angeles—6898 E. Acco St. RA 3-9751  
Calif., San Francisco—809 Tennessee St. MI 7-4640  
Ore., Portland—2210 N.W. Roosevelt. BE 4727  
*Representatives*  
Calif., Los Angeles—Irving G. King Co., 821 Mateo St. TU 3176  
Calif., San Francisco—Stryco Mfg. Co., 470 Natoma St. SU 1-3310  
Ore., Portland—Paulson Machine Works, 1433 N.W. Quimby St. CA 8-5237  
Wash., Seattle—Berger Engineering Co., 3236 16th Ave. S.W. MU 4280  
Wash., Spokane—Union Iron Works, E. 217 Montgomery. HU 7-1691

Write to WESTERN INDUSTRY  
for information on any manu-  
facturer not listed here.

## WEST COAST — YUBA

## YALE & TOWNE MFG. CO., 11000 Roosevelt Rd., Philadelphia 15, Pa.

Hoists (chain, electric, hand, monorail, portable, traveling), Trucks (bag, barrel, drum, die handling, elevating or lifting, factory and warehouse, diesel fork, electric fork, gasoline fork, hand, motorized hand, industrial, gasoline lift, hand lift, hand-electric lift, hand-mechanical lift, hydraulic lift, power-driven lift, pallet, paper roll, skid handling, straddle, electric tining), Tractor (electric warehouse).

See advertisement on pages 8 & 9

### Branch Offices

Calif., Fresno—410 Broadway. FR 3-7211  
Calif., Los Angeles—5711 E. Olympic Blvd. RA 3-9761  
Calif., Sacramento—2015 "J" St. GI 3-6642  
Calif., San Leandro—Doolittle Dr. at Davis St.  
*Regional Hoist Offices*  
Calif., Los Angeles—5711 E. Olympic Blvd. RA 3-9761  
Calif., San Leandro—Doolittle Dr. at Davis St.  
Wash., Seattle—3208 Shorewood Dr., Apt. 43. Mercer Island. AD 8253

*Representatives (Trucks only)*  
Ariz., Phoenix—James P. Kinney Co. of Ariz., 929 Grand Ave. AL 8-2778  
Calif., San Diego—Earthmovers Equipment & Supply, Inc., 6029 Fairmount Ext. AT 1-3993  
Colo., Denver—Joe Coursey Equipment Co., Inc., 1243 Walnut St. AC 2-9551  
Hawaii, Honolulu—Hilo Iron Works  
Hawaii, Honolulu—Honolulu Iron Works, P. O. Box 340

N. Mex., Albuquerque—Albuquerque Material Handling Co., 6431 Linn Ave. N.E. Phone 6-5518  
Ore., Portland—Charles H. Day Co., 225 S.W. First Ave. CA 2-9189  
Utah, Salt Lake City—Materials Handling Engineers, 334 W. 17th So. St. EL 5-8751  
Wash., Spokane—Towne Equipment Co., Inc., 622 No. Monroe St. FA 8-1540

## L. A. YOUNG SPRING & WIRE CORP., OTTAWA STEEL DIV., 435 1/2 So. Main St., Ottawa, Kan.

Fork lift trucks (outdoor type, hydraulic).

*Representatives*  
Calif., Los Angeles—Smith Booth Usher Co., 2001 Santa Fe Ave. TR 6911  
Calif., San Francisco—Edward R. Bacon Co., Folsom at 17th St. HE 1-3700  
Colo., Denver—Western Machinery Co., 2400 W. 7th Ave. TA 5-7151  
Idaho, Boise—Intermountain Equipment Co., Broadway at Myrtle. Phone 3-6441  
Idaho, Pocatello—Intermountain Equipment Co., 210 No. 4th Ave. Phone 3663  
N. Mex., Albuquerque—J. D. Coggin Co., 1717 No. 2nd. Phone 3-5505  
Ore., Portland—Howard-Cooper Corp., 5821 N.E. Glisan. BE 5-6601. (Also Howard-Cooper branches in Albany, Central Point, Coquille, Eugene, and Roseburg, Ore.)  
Utah, Salt Lake City—Kimball Equipment Co., 1846 So. Second W. Phone 6-6775  
Wash., Seattle—Howard-Cooper Corp., 5055 4th Ave. So. MO 6-1744  
Wash., Spokane—Howard-Cooper Corp., No. 808 Division St.

## YUBA MFG. CO., 701 East "H" St., Benicia, Calif.

Conveyors (belt, bucket), Cranes (jib, double beam overhead, electric and electric traveling overhead), Pulleys (conveyor, other), Trailers (tractor), Winches and Windlasses, Movable wagon.

### Branch

Calif., San Francisco—351 California St. EX 2-0274

### Representatives

Ariz., Phoenix—Arizona Cedar Rapids Co., 1726 Jackson St.  
Calif., Alhambra—Frank Cox Equipment Co., 3000 W. Valley Blvd.  
Calif., Los Angeles—Brown-Bevis Industrial Equipment, 6550 E. Washington Blvd. PA 8-7161  
Calif., Oakland—Bay Cities Equipment Co., 2606 Cypress St.  
Calif., Stockton—Stockton Iron Works, P. O. Box 1331  
Idaho, Boise—Idaho Sprocket & Machine Wks., 2400 Warm Springs Ave.  
Nev., Reno—Sierra Machinery Co., 407 Morrill Ave.  
N. Mex., Albuquerque—Lively Equipment Co., 2601 Fourth St.  
Ore., Ashland—Fowler Engineering Sales Co., P.O. Box 162



# CLASSIFIED PRODUCTS SECTION

If you are searching for a particular type of material handling or industrial packaging product, look here under proper heading to obtain names of manufacturers—then refer to listings in "Where-to-Buy" section to obtain pertinent buying information.

Only manufacturers are included in this Directory whose response to WESTERN INDUSTRY'S questionnaire indicated they have distributor or company offices within the 11 Western states. Therefore, you will save time by referring to this directory to locate nearest sources of supply or product information.

## AXLES—trailer or truck

Electric Wheel Co.  
F.A.B. Mfg. Co.

## BAGS—burlap, canvas

Ames Harris Neville Co.  
Bemis Brothers Bag Co.

## BAGS—multi-wall

Ames Harris Neville Co.  
Bemis Brothers Bag Co.  
Crown Zellerbach Corp.  
Industrial Marking Equipment Co.  
(printing)

## BAGS—shipping

Bemis Brothers Bag Co.  
Crown Zellerbach Corp.

## BAGS—other

Bemis Brothers Bag Co. (cotton,  
small paper, polyethylene)

## BARRELS FOR SHIPPING—

### fibre

Gaylord Container Corp., Div. of  
Crown Zellerbach Corp.  
National Vulcanized Fibre Co.  
Rheem Mfg. Co.

## BARRELS FOR SHIPPING—

### other

Gaylord Container Corp., Div. of  
Crown Zellerbach Corp.  
(corrugated)  
Republisc Steel Corp. (steel)  
Rheem Mfg. Co. (steel)  
United States Rubber Co.,  
Mechanical Goods Div.

## BASKETS—fibre

Convoy, Inc.  
Fiberboard Paper Products Corp.  
Gaylord Container Corp., Div. of  
Crown Zellerbach Corp.  
National Vulcanized Fibre Co.

## BASKETS—metal

Cambridge Wire Cloth Co.  
Chas. Wm. Doepke Mfg. Co.  
Rack Engineering Co. of Calif., Inc.  
Union Steel Products Co.  
Wire and Iron Products, Inc.  
Worley & Co.

## BASKETS—wire

Cambridge Wire Cloth Co.  
Cyclone Fence Dept., American Steel  
& Wire Div., U. S. Steel Corp.  
Hartman Metal Fabricators, Inc.  
Hewitt-Robins, Inc.  
Mid-West Wire Products Co., Inc.  
Pittsburgh Steel Products Div.,  
Pittsburgh Steel Co.  
Rack Engineering Co. of Calif., Inc.  
Springfield Steel Product Co.  
Technibilt Corp.  
Union Steel Products Co.  
Wire and Iron Products, Inc.

## BASKETS—other

Blackman Plastics (plastic)  
Gaylord Container Corp., Div. of  
Crown Zellerbach Corp.  
(corrugated)

Hartman Metal Fabricators, Inc.  
Mid-West Wire Products Co., Inc.  
(expanded metal)

## BATTERIES

C & D Batteries, Inc.  
Thomas A. Edison, Inc.,  
Edison Storage Battery Div.  
Electric Products Co.  
(battery chargers)  
Exide Industrial Div., The Electric  
Storage Battery Co.  
Gould National Batteries, Inc.  
The Hertner Electric Co.  
(battery chargers)  
K. W. Battery Co., Inc.  
Laher Spring & Tire Corp.  
The Lincoln Electric Co.  
(battery chargers)

## BELTING—chain link

Cyclone Fence Dept., American Steel  
& Wire Div., U. S. Steel Corp.  
L. P. Degen Belting Co.  
General Nailing Machine Corp.  
Hurt Conveyor Co.  
Link-Belt Co.  
Paramount Mfg. Co.  
United States Rubber Co.,  
Mechanical Goods Div.

## BELTING—composition

L. P. Degen Belting Co.  
R & J Dick Co.  
Hewitt-Robins, Inc.  
Hurt Conveyor Co.  
Ton-Tex Corp.  
Victor Balata & Textile Belting Co.

## BELTING—conveyor

American Rubber Mfg. Co.  
Ashworth Bros., Inc.  
Barber-Greene Co.  
Cambridge Wire Cloth Co.  
Conveyor Co.  
Cyclone Fence Dept., American Steel  
& Wire Div., U. S. Steel Corp.  
L. P. Degen Belting Co.  
R & J Dick Co.  
A. B. Farquhar Div.,  
The Oliver Corp.  
Fetterman-Colfax Co.  
Food Machinery & Chemical Corp.,  
Packing Equipment Div.  
The Franklin Cotton Mill Co.  
General Nailing Machine Corp.  
Goodall Rubber Co.  
B. F. Goodrich Industrial  
Products Co.  
Hewitt-Robins, Inc.  
Hurt Conveyor Co.  
Link-Belt Co.  
The Main Belting Co.  
Mathews Conveyor Co., West Coast  
May-Fran Engineering, Inc.  
New York Belting & Packing Co.  
Paramount Mfg. Co.  
Quaker Pioneer Rubber Div.,  
H. K. Porter Co.  
Raybestos-Manhattan, Inc.,  
Manhattan Rubber Div.  
Republisc Rubber Div.,  
Lee Rubber & Tire Co.  
The Russell Manufacturing Co.  
Stephens-Adamson Mfg. Co.  
Thermoid Co.  
Ton-Tex Corp.  
United States Rubber Co.,  
Mechanical Goods Div.  
Victor Balata & Textile Belting Co.  
Wire Belt Co. of America

## BELTING—fabric, canvas, etc.

L. P. Degen Belting Co.  
R & J Dick Co.  
Fetterman-Colfax Co.  
The Franklin Cotton Mill Co.

Gates Rubber Co.  
General Nailing Machine Corp.  
Goodall Rubber Co.  
Hurt Conveyor Co.  
The Main Belting Co.  
Raybestos-Manhattan, Inc.,  
Manhattan Rubber Div.  
The Russell Manufacturing Co.  
Ton-Tex Corp.  
Victor Balata & Textile Belting Co.  
(Balata, canvas stitched,  
solid woven cotton)

## BELTING—elevator

American Rubber Mfg. Co.  
L. P. Degen Belting Co.  
R & J Dick Co.  
Fetterman-Colfax Co.  
The Franklin Cotton Mill Co.  
General Nailing Machine Corp.  
Goodall Rubber Co.  
B. F. Goodrich  
Industrial Products Co.  
Hewitt-Robins, Inc.  
Hurt Conveyor Co.  
Link-Belt Co.  
The Main Belting Co.  
New York Belting & Packing Co.  
Paramount Mfg. Co.  
Quaker Pioneer Rubber Div.,  
H. K. Porter Co.  
Raybestos-Manhattan, Inc.,  
Manhattan Rubber Div.  
Republisc Rubber Div.,  
Lee Rubber & Tire Co.  
The Russell Manufacturing Co.  
Thermoid Co.  
Ton-Tex Corp.  
United States Rubber Co.,  
Mechanical Goods Div.  
Victor Balata & Textile Belting Co.

## BELTING—endless

Cambridge Wire Cloth Co.  
Cyclone Fence Dept., American Steel  
& Wire Div., U. S. Steel Corp.  
L. P. Degen Belting Co.  
R & J Dick Co.  
Fort Worth Steel  
& Machinery Corp.  
Gates Rubber Co.  
General Nailing Machine Corp.  
Goodall Rubber Co.  
B. F. Goodrich  
Industrial Products Co.  
Hewitt-Robins, Inc.  
Hurt Conveyor Co.  
New York Belting & Packing Co.  
Raybestos-Manhattan, Inc.,  
Manhattan Rubber Div.  
Republisc Rubber Div.,  
Lee Rubber & Tire Co.  
The Russell Manufacturing Co.  
Thermoid Co.  
Ton-Tex Corp.  
United States Rubber Co.,  
Mechanical Goods Div.  
Victor Balata & Textile Belting Co.  
(woven)

## BELTING—wire

Ashworth Bros., Inc.  
Cambridge Wire Cloth Co.  
Cyclone Fence Dept., American Steel  
& Wire Div., U. S. Steel Corp.  
L. P. Degen Belting Co.  
Gates Rubber Co.  
General Nailing Machine Corp.  
J. W. Greer Co.  
Hewitt-Robins, Inc.  
Hurt Conveyor Co.  
Wire Belt Co. of America

## BELTING—other

American Pulley Co. (V-belts)  
American Rubber Co. (trans)  
Colorado Fuel & Iron Corp.  
(metal processing)  
L. P. Degen Belting Co.  
Dodge Mfg. Corp. (V-belt)  
Flexible Steel Lacing Co. ("V")

Fort Worth Steel & Machinery Co.  
(V-belt)  
The Franklin Cotton Mill Co.  
(cotton)

Gates Rubber Co.  
General Nailing Machine Corp.  
Gerbing Mfg. Corp. (variable speed)  
Goodall Rubber Co. (V)  
Graton & Knight Co. (leather)  
Hewitt-Robins, Inc.  
Holz Rubber Co. (cleated)  
E. F. Houghton & Co. (leather)  
Hurt Conveyor Co.  
May-Fran Engineering, Inc.  
New York Belting & Packing Co.  
Paramount Mfg. Co. (draper)  
Raybestos-Manhattan, Inc.,  
Manhattan Rubber Div. (rubber)  
Reeves Pulley Co.  
J. E. Rhoads & Sons (leather)  
Sandvik Steel, Inc. (conveyor, steel)  
Victor Balata & Textile Belting Co.  
(Hycar, leather, neoprene)  
Wire Belt Co. of America  
(processing)

## BELT FASTENERS & BELT

### LACINGS

American Rubber Mfg. Co.  
Clipper Belt Lacer Co.  
Crescent Belt Fastener Co.  
L. P. Degen Belting Co.  
R & J Dick Co.  
Flexible Steel Lacing Co.  
Graton & Knight Co.  
E. F. Houghton & Co.  
Hurt Conveyor Co.  
J. E. Rhoads & Sons  
Ton-Tex Corp.

## BINS

Akro Mills, Inc.  
Bathey Manufacturing Co.  
Bodison Mfg. Co.  
Borroughs Mfg. Co.  
Bulldog Pallet Co.  
Conveyor Co.  
Convoy, Inc.  
Equipment Manufacturing, Inc.  
Equipto Div.,  
Aurora Equipment Co.  
Fort Steuben Metal Products Co.  
Gar-Bro Mfg. Co.  
Handling Equipment Corp.  
Hartman Metal Fabricators, Inc.  
Iron Works, Inc.  
Link-Belt Co. (gates, storage)  
Lippmann Engineering Works  
Masonite Corp.  
Mid-west Wire Products Co., Inc.  
Multiframe of California, Inc.  
Noble Co.  
Petley, Inc.  
Pressteel Co.  
Rack Engineering Co.  
of California, Inc.  
Republisc Steel Corp.  
Sturdi-Bilt Engineering Co.  
(bulk storage)  
Tote System, Inc.  
Worley & Co.

## BOXES FOR

### SHIPPING—Corrugated and fibre

Crown Zellerbach Corp.  
Fiberboard Paper Products Corp.  
Gaylord Container Corp.  
Longview Fibre Co.  
National Vulcanized Fibre Co.  
Paltier Corp.  
Schmidt Lithograph Co.

## BOXES FOR SHIPPING— wirebound, wooden and fiberboard

Martin Brothers Container  
& Timber Products Corp.



## BOXES FOR SHIPPING, other — CONVEYORS, drag

### BOXES FOR SHIPPING—other

Auto Sheet Metal Works  
(corrugated steel)  
Brown Trailers, Inc. (aluminum)  
Chas. Wm. Doepeke Mfg. Co. (tote)  
Equipment Manufacturing, Inc.  
Handling Equipment Corp.  
(wire & steel)  
G. B. Lewis Co. (woven, wood and  
wire returnable, stacking, skid)  
Masonite Corp. (Masonite)  
Metalstamp, Inc. (re-usable)  
Pittsburgh Steel Products Div.,  
Pittsburgh Steel Co. (wire)  
Powell Pressed Steel Co. (production  
boxes and stands steel)  
Republic Steel Corp.  
Springsport Steel Products Co.  
(wire mesh containers)  
The Union Metal Manufacturing Co.

### BOXES, TOTE

Bathel Manufacturing Co.  
Blackman Plastics  
Convey, Inc.  
Chas. Wm. Doepeke Mfg. Co.  
Gaylord Container Corp.  
Handling Equipment Corp.  
Hartman Metal Fabricators, Inc.  
Karl A. Herman Co.  
Hollywood Plastic Arts, Inc.  
Hunter Woodworks  
Iron Works, Inc.  
G. B. Lewis Co. (polyester)  
Magnesium Co. of America  
Masonite Corp.  
Multiframe of California, Inc.  
The Paige Co.  
Petley, Inc.  
Powell Pressed Steel Co. (steel)  
Pressteel Co.  
Stearns Electric Corp.  
Tote System, Inc.  
The Union Metal Manufacturing Co.  
Washington Aluminum Co. Inc.  
Worley & Co.

### CAR PULLERS

American Engineering Co.  
Bodinson Mfg. Co.  
J. D. Christian Engineers  
Clyde Iron Works  
Jeffrey Mfg. Co.  
Link-Belt Co.  
Moffett Engineering, Inc.  
Stephens-Adamson Mfg. Co.  
Whiting Corp.

### CARTS—hand and push

Autoette Division, Wayne Mfg. Co.  
Auto Sheet Metal Works  
Colson Corp.  
Equipto Div.,  
Aurora Equipment Co.  
The Fairbanks Co.  
Fetterman-Colfax Co.  
Gar-Bro Mfg. Co.  
Hamilton Caster & Mfg. Co.  
Hartman Metal Fabricators, Inc.  
Jackson Mfg. Co.  
Lewis-Shepard Products, Inc.  
Magline, Inc.  
Magnesium Co. of America  
Masonite Corp.  
Multiframe of California, Inc.  
Nutting Truck & Caster Co.  
Pollard Bros. Manufacturing Co.  
Rack Engineering Co.  
of California, Inc.  
Rol-Away Truck Mfg. Co., Inc.  
Taylor Corp.  
Technibilt Corp.

### CARTS—other

Blackman Plastics (box truck)  
Brooks & Perkins, Inc.  
Cushman Motor Works, Inc.  
(power)  
Electric Marketeer Manufacturing  
Co. (electric cars and trucks)  
Equipto Div.,  
Aurora Equipment Co.  
Lewis-Shepard Products, Inc.  
Pacific Car & Foundry Co. (log)  
Pollard Bros. Mfg. Co. (stock)  
Pressteel Co. (stock)  
Rack Engineering Co. of  
Calif., Inc. (special design)  
Rol-Away Truck Manufacturing  
Co., Inc.  
Roll Rite Corp.  
Taylor Manufacturing Co. (electric)  
Technibilt Corp.  
(wire basket, nesting)

### CASTERS

Aerol Co.  
Albion Industries  
Bassick Co.

Bond Foundry & Machine Co.  
Colson Corp.  
Colson Equipment & Supply Co.  
Darnell Corp.  
Divine Brothers Co.  
Fairbanks Co.  
Faultless Caster Corp.  
Gleason Corp.  
Hamilton Caster & Mfg. Co.  
Handling Equipment Corp.  
Jarvis & Jarvis, Inc.  
Nalpak Corp.  
Nutting Truck & Caster Co.  
Rack Engineering Co.  
of Calif., Inc.  
Rapid Standard Co.  
Roll Rite Corp.  
Saginaw Products Corp.  
Thomas Truck & Caster Co.  
Wellington Machine Co.

### CHAINS

Acme Chain Corp.  
American Chain & Cable Co.  
American Hoist & Derrick Co.  
(chain fittings)  
Campbell Chain Co.  
Chain Belt Co.  
J. D. Christian Engineers  
Diamond Chain Co., Inc. (roller)  
R & J Dick Co.  
Electric Steel Foundry Co.  
Hurt Conveyor Co.  
Jeffrey Mfg. Co.  
Link-Belt Co. (chains & sprockets)  
Morse Chain Co.  
Philadelphia Chain & Block  
Mfg. Co., Inc.  
Republic Steel Corp.  
Western Chain Co.  
Whitney Chain Co.

### CLUTCHES—safety

Flaton Machine Works  
Jeffrey Manufacturing Co.  
Stearns Electric Corp.

### CONVEYORS—apron

Alden Equipment Co.  
Alvey Conveyor Manufacturing Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
Bayer, A. J., Co.  
Bodinson Mfg. Co.  
The E. W. Buschman Co.  
Chain Belt Co.  
Chantland Manufacturing Co.  
J. D. Christian Engineers  
Conveyor Co.  
Hurt Conveyor Co.  
Jeffrey Mfg. Co.  
Link-Belt Co.  
Lippmann Engineering Works  
M-H Standard Corp.  
Mathews Conveyor Co., West Coast  
May-Fran Engineering, Inc.  
Mechanical Systems, Inc.  
Mercury Industries, Inc.  
Metzgar Conveyor Co.  
New London Engineering Co.  
Oliver Corp.  
Sage Equipment Co., Inc.  
Standard Conveyor Co.  
Stephens-Adamson Mfg. Co.  
Jervis B. Webb Co. of Calif.

### CONVEYORS—automatic

Alden Equipment Co.  
Alvey Conveyor Manufacturing Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
American Monorail Co.  
Bayer, A. J., Co.  
The E. W. Buschman Co.  
Chainveyor Corp.  
J. D. Christian Engineers  
Cleveland Tramrail Div., Cleveland  
Crane and Engineering Co.  
Conveyor Co.  
Flexoveyor Mfg. Co.  
Food Machinery & Chemical Corp.  
Packing Equipment Div.  
General Nailing Machine Corp.  
Hurt Conveyor Co.  
Jeffrey Mfg. Co.  
Lamson Corp.  
Link-Belt Co.  
Lippmann Engineering Works  
M-H Standard Corp.  
Mathews Conveyor Co., West Coast  
Mechanical Handling Systems, Inc.  
Mercury Industries, Inc.  
New London Engineering Co.  
Oliver Corp.  
Rapid Standard Co.  
Richards-Wilcox Manufacturing Co.  
Stephens-Adamson Mfg. Co.  
Universal Cranehoist &  
Monorail Co.

Jervis B. Webb Co. of Calif.  
Weigh Right Automatic Scale Co.

### CONVEYORS—bag and bale

Alvey Conveyor Manufacturing Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
Bayer, A. J., Co.  
Belt Corp.  
The E. W. Buschman Co.  
Chantland Manufacturing Co.  
J. D. Christian Engineers  
A. B. Farquhar Division,  
The Oliver Corp.  
Fetterman-Colfax Co.  
Flexoveyor Mfg. Co.  
Hurt Conveyor Co.  
Jeffrey Mfg. Co.  
Lamson Corp.  
Link-Belt Co.  
Lippmann Engineering Works  
Mathews Conveyor Co., West Coast  
Mechanical Handling Systems, Inc.  
New London Engineering Co.  
Nichols Conveyor &  
Engineering Co., Inc.  
Paramount Mfg. Co.  
Power-Curve Conveyor Co.  
Richardson Scale Co.  
Sage Equipment Co., Inc.  
Stephens-Adamson Mfg. Co.  
Wehle Conveyor Co.

### CONVEYORS—belt

Alden Equipment Co.  
Alvey Conveyor Manufacturing Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
American Rubber Co.  
Arrow Products, Inc.  
Ashworth Bros., Inc.  
Barber-Greene Co.  
Bayer, A. J., Co.  
Baughman Manufacturing Co., Inc.  
Belt Corp.  
Bodinson Mfg. Co.  
The E. W. Buschman Co.  
Chain Belt Co.  
Chantland Manufacturing Co.  
J. D. Christian Engineers  
Colson Corp.  
Conveyor Co.  
Cost Reduction Equipment Co.  
L. P. Degen Belting Co.  
A. B. Farquhar Division,  
The Oliver Corp.  
Harry J. Ferguson Co.  
Fetterman-Colfax Co.  
Flexoveyor Mfg. Co.  
General Nailing Machine Corp.  
B. F. Goodrich  
Industrial Products Co.  
Hewitt-Robins, Inc.  
Hurt Conveyor Co.  
Island Equipment Corp.  
Jeffrey Mfg. Co.  
Joy Mfg. Co.  
Kolman Manufacturing Co.  
Lamson Corp.  
Link-Belt Co.  
Lippmann Engineering Works  
M-H Standard Corp.  
Mathews Conveyor Co., West Coast  
May-Fran Engineering, Inc.  
Mechanical Handling Systems, Inc.  
Mercury Industries, Inc.  
Metzgar Conveyor Co.  
New London Engineering Co.  
New York Belting & Packing Co.  
Oliver Corp.  
Samuel Olson Mfg. Co., Inc.  
Paramount Mfg. Co.  
Phillips Conveyor Co.  
Rapid Standard Co.  
Sage Equipment Co., Inc.  
Sandvik Steel, Inc.  
Schultz Materials Handling Corp.  
Speedways Conveyors, Inc.  
Standard Conveyor Co.  
Stephens-Adamson Mfg. Co.  
United States Rubber Co.,  
Mechanical Goods Div.  
Universal Hoist Co.  
Jervis B. Webb Co. of Calif.  
Weigh Right Automatic Scale Co.  
West Bend Equipment Corp.  
Yuba Mfg. Co.

### CONVEYORS—bucket

Alden Equipment Co.  
Alvey Conveyor Manufacturing Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
Bayer, A. J., Co.  
Belt Corp.  
Bodinson Mfg. Co.  
Bosworth Mfg. Co.  
The E. W. Buschman Co.  
Chain Belt Co.  
Chantland Manufacturing Co.  
J. D. Christian Engineers  
Conveyor Co.  
A. B. Farquhar Division,  
The Oliver Corp.  
Fetterman-Colfax Co.

Fort Worth Steel &  
Machinery Div.  
Hewitt-Robins, Inc.  
Hurt Conveyor Co.  
Jeffrey Mfg. Co.  
Link Belt Co.  
Lippmann Engineering Works  
M-H Standard Corp.  
Nichols Conveyor &  
Engineering Co., Inc.  
Phillips Conveyor Co.  
Stephens-Adamson Mfg. Co.  
Universal Hoist Co.  
Jervis B. Webb Co. of Calif.  
Weigh Right Automatic Scale Co.  
Yuba Mfg. Co.

### CONVEYORS—chain or link

Acme Chain Corp.  
Alden Equipment Co.  
Alvey Conveyor &  
Engineering Co., Inc.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
Bayer, A. J., Co.  
Belt Corp.  
Bodinson Mfg. Co.  
The E. W. Buschman Co.  
Chain Belt Co.  
Chainveyor Corp.  
J. D. Christian Engineers  
Conveyor Co.  
A. B. Farquhar Div., Oliver Corp.  
Harry J. Ferguson Co.  
Fetterman-Colfax Co.  
Food Machinery & Chemical Corp.,  
Packing Equipment Div.  
General Nailing Machine Corp.  
Hurt Conveyor Co.  
Island Equipment Corp.  
Jeffrey Mfg. Co.  
Lamson Corp.  
Link-Belt Co.  
Lippmann Engineering Works  
M-H Standard Corp.  
Mathews Conveyor Co., West Coast  
Mercury Industries, Inc.  
Metzgar Conveyor Co.  
Oliver Corp.  
Paramount Corp.  
Sage Equipment Co., Inc.  
Schultz Materials Handling Corp.  
Stephens-Adamson Mfg. Co.  
United States Rubber Co.,  
Mechanical Goods Div.  
Universal Cranehoist & Monorail Co.  
Jervis B. Webb Co. of Calif.  
Wehle Conveyor Co.  
Whitney Chain Co.

### CONVEYORS—continuous flow

Alvey Conveyor Manufacturing Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
American Monorail Co.  
Bayer, A. J., Co.  
Belt Corp.  
Bosworth Mfg. Co.  
J. D. Christian Engineers  
Colson Corp.  
Conveyor Co.  
Electric Steel Foundry Co.  
Fetterman-Colfax Co.  
Hurt Conveyor Co.  
Jeffrey Mfg. Co.  
Lamson Corp.  
Link-Belt Co.  
Mathews Conveyor Co., West Coast  
Mercury Industries, Inc.  
New London Engineering Co.  
Oliver Corp.  
Paramount Mfg. Co.  
Rapid Standard Co.  
Richards-Wilcox Mfg. Co.  
Screw Conveyor Co.  
Speedways Conveyors, Inc.  
Standard Conveyor Co.  
Stephens-Adamson Mfg. Co.  
Universal Cranehoist &  
Monorail Co.  
Jervis B. Webb Co. of Calif.  
Wehle Conveyor Co.  
Weigh Right Automatic Scale Co.

### CONVEYORS—drag

Alden Equipment Co.  
Alvey Conveyor Manufacturing Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
Bayer, A. J., Co.  
Belt Corp.  
Bodinson Mfg. Co.  
Bosworth Mfg. Co.  
The E. W. Buschman Co.  
Chain Belt Co.  
Chantland Manufacturing Co.  
J. D. Christian Engineers  
Conveyor Co.  
A. B. Farquhar Division,  
The Oliver Corp.  
Fetterman-Colfax Co.



# CONVEYORS, flight — CONVEYORS, special

Fort Worth Steel & Machinery Co.  
Hurt Conveyor Co.  
Jeffrey Mfg. Co.  
Lamson Corp.  
Link-Belt Co.  
Lippmann Engineering Works  
M-H Standard Corp.  
Mathews Conveyor Co. West Coast  
Oliver Corp.  
Sauerman Bros., Inc.  
Stephens-Adamson Mfg. Co.  
Universal Hoist & Mfg. Co.  
Jervis B. Webb Co. of Calif.

## CONVEYORS—flight

Alden Equipment Co.  
Alvey Conveyor Manufacturing Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
Bayer, A. J., Co.  
Belt Corp.  
Bodinson Mfg. Co.  
Bosworth Mfg. Co.  
The E. W. Buschman Co.  
Chain Belt Co.  
Chantland Manufacturing Co.  
J. D. Christian Engineers  
Conveyor Co.  
Electric Steel Foundry Co.  
A. B. Farquhar Division,  
The Oliver Corp.  
Fetterman-Coffax Co.  
Fort Worth Steel & Machinery Co.  
Holt Rubber Co.  
Hurt Conveyor Co.  
Jeffrey Mfg. Co.  
Joy Mfg. Co.  
Lamson Corp.  
Link-Belt Co.  
Lippmann Engineering Works  
M-H Standard Corp.  
Mathews Conveyor Co., West Coast  
Mercury Industries, Inc.  
Paramount Mfg. Co.  
Phillips Conveyor Co.  
Sage Equipment Co., Inc.  
Stephens-Adamson Mfg. Co.  
Jervis B. Webb Co. of Calif.  
Weigh Right Automatic Scale Co

## CONVEYORS—foundry

Alden Equipment Co.  
Alvey Conveyor Manufacturing Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
American MonoRail Co.  
Bayer, A. J., Co.  
Bosworth Mfg. Co.  
The E. W. Buschman Co.  
Carrier Conveyor Corp.  
Chain Belt Co.  
Chantland Manufacturing Co.  
J. D. Christian Engineers  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
Conveyor Co.  
A. B. Farquhar Div.,  
The Oliver Corp.  
Fetterman-Coffax Co.  
Hewitt-Robins, Inc.  
Hurt Conveyor Co.  
Jeffrey Mfg. Co.  
Joy Mfg. Co.  
Lamson Corp.  
Link-Belt Co.  
Lippmann Engineering Works  
Mathews Conveyor Co., West Coast  
New London Engineering Co.  
Phillips Conveyor Co.  
Sage Equipment Co., Inc.  
Simplicity Engineering Co.  
Standard Conveyor Co.  
Stephens-Adamson Mfg. Co.  
Universal Cranehoist &  
Monorail Co.  
Jervis B. Webb Co. of Calif.

## CONVEYORS—gravity roller

Alvey Conveyor Manufacturing Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
Arrow Products, Inc.  
Bayer, A. J., Co.  
The Boman Co.  
The E. W. Buschman Co.  
Chantland Manufacturing Co.  
J. D. Christian Engineers  
Colson Corp.  
Colson Equipment & Supply Co.  
Conveyor Co.  
A. B. Farquhar Div.,  
The Oliver Corp.  
Harry J. Ferguson Co.  
Fetterman-Coffax Co.  
Food Machinery & Chemical Corp.,  
Packing Equipment Div.  
General Nailing Machine Corp.  
Hurt Conveyor Co.  
Island Equipment Corp.  
Lamson Corp.  
Lippmann Engineering Works  
Mathews Conveyor Co., West Coast  
Rack Engineering Co. of Calif., Inc.  
Roll Rite Corp.  
Sage Equipment Co.  
Jervis B. Webb Co. of Calif.  
Wehle Conveyor Co.

Mathews Conveyor Co., West Coast  
Metzgar Conveyor Co.  
Oliver Corp.  
Phillips Conveyor Co.  
Sage Equipment Co., Inc.  
Saginaw Products Corp.  
Schultz Materials Handling Corp.  
Speedways Conveyors, Inc.  
Standard Conveyor Co.  
Stephens-Adamson Mfg. Co.

## CONVEYORS—live roller

Alvey Conveyor Manufacturing Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
Arrow Products, Inc.  
Bayer, A. J., Co.  
The E. W. Buschman Co.  
Chantland Manufacturing Co.  
J. D. Christian Engineers  
Colson Co.  
Conveyor Co.  
A. B. Farquhar Div.,  
The Oliver Corp.  
Harry J. Ferguson Co.  
Fetterman-Coffax Co.  
Food Machinery & Chemical Corp.,  
Packing Equipment Div.  
Hurt Conveyor Co.  
Island Equipment Co.  
Jeffrey Mfg. Co.  
Lamson Corp.  
Lippmann Engineering Works  
M-H Standard Corp.  
Mathews Conveyor Co., West Coast  
Metzgar Conveyor Co.  
Oliver Corp.  
Samuel Olson Mfg. Co., Inc.  
Paramount Mfg. Co.  
Rapid Standard Co.  
Sage Equipment Co.  
Saginaw Products Corp.  
Schultz Material Handling Corp.  
Standard Conveyor Co.  
Stephens-Adamson Mfg. Co.

## CONVEYORS—overhead

Alden Equipment Co.  
Alvey Conveyor Manufacturing Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
American MonoRail Co.  
Bayer, A. J., Co.  
The E. W. Buschman Co.  
Chainveyor Corp.  
J. D. Christian Engineers  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
A. B. Farquhar Div.,  
The Oliver Corp.  
Food Machinery & Chemical Corp.,  
Packing Equipment Div.  
Hurt Conveyor Co.  
Lamson Corp.  
Lippmann Engineering Works  
Louden Machinery Co.  
M-H Standard Corp.  
Mathews Conveyor Co., West Coast  
Samuel Olson Mfg. Co., Inc.  
Power-Curve Conveyor Co.  
Rapid Standard Co.  
Richards-Wilcox Mfg. Co.  
Saginaw Products Corp.  
Schultz Materials Handling Corp.  
Spanmaster Crane Div.,  
Jervis B. Webb Co. of California  
Universal Cranehoist &  
Monorail Co.  
Jervis B. Webb Co. of Calif.

## CONVEYORS—pallet

Alden Equipment Co.  
Alvey Conveyor Manufacturing Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
Bayer, A. J., Co.  
The E. W. Buschman Co.  
J. D. Christian Engineers  
Flexovoy Mfg. Co.  
Food Machinery & Chemical Corp.,  
Packing Equipment Div.  
Hurt Conveyor Co.  
Island Equipment Corp.  
Lamson Corp.  
Link-Belt Co.  
Lippmann Engineering Works  
Mathews Conveyor Co., West Coast  
Rack Engineering Co. of Calif., Inc.  
Roll Rite Corp.  
Sage Equipment Co.  
Jervis B. Webb Co. of Calif.  
Wehle Conveyor Co.

## CONVEYORS—pneumatic

J. D. Christian Engineers  
The Day Co.  
Fort Worth Steel & Machinery Co.  
Fuller Co.  
Lamson Corp.

## CONVEYORS—portable

Alden Equipment Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
Arrow Products, Inc.  
Barber Greene Co.  
Baughman Manufacturing Co., Inc.  
Belt Corp.  
Bosworth Mfg. Co.  
The E. W. Buschman Co.  
Chantland Manufacturing Co.  
J. D. Christian Engineers  
Colson Corp.  
Conveyor Co.  
A. B. Farquhar Div.,  
The Oliver Corp.  
Harry J. Ferguson Co.  
Fetterman-Coffax Co.  
Flexovoy Mfg. Co.  
Food Machinery & Chemical Corp.,  
Packing Equipment Div.  
Fort Worth Steel & Machinery Co.  
Hurt Conveyor Co.  
Island Equipment Corp.  
Joy Mfg. Co.  
Lamson Corp.  
Lippmann Engineering Works  
Magnesium Co. of America  
Mathews Conveyor Co., West Coast  
May-Fran Engineering, Inc.  
Mercury Industries, Inc.  
Metzgar Conveyor Co.  
New London Engineering Co.  
Oliver Corp.  
Samuel Olson Mfg. Co., Inc.  
Paramount Mfg. Co.  
Phillips Conveyor Co.  
Power-Curve Conveyor Co.  
Geo. M. Prescott Co.  
Rapid Standard Co.  
Sage Equipment Co.  
Standard Conveyor Co.  
Stephens-Adamson Mfg. Co.

## CONVEYORS—screw

Alden Equipment Co.  
Baughman Manufacturing Co., Inc.  
Chantland Manufacturing Co.  
J. D. Christian Engineers  
Conveyor Co.  
Fetterman-Coffax Co.  
Fort Worth Steel & Machinery Co.  
Hapman Conveyors, Inc.,  
Div. of Hapman-Dutton Co.  
Hurt Conveyor Co.  
Jeffrey Mfg. Co.  
Link-Belt Co.  
Lippmann Engineering Works  
M-H Standard Corp.  
Sage Equipment Co., Inc.  
Screw Conveyor Pacific Corp.  
Speedway Conveyors, Inc.  
Stephens-Adamson Mfg. Co.

## CONVEYORS—skate

Alvey Conveyor Manufacturing Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
Arrow Products, Inc.  
Bayer, A. J., Co.  
The Boman Co.  
The E. W. Buschman Co.  
Chantland Manufacturing Co.  
J. D. Christian Engineers  
Colson Corp.  
Colson Equipment & Supply Co.  
Conveyor Co.  
A. B. Farquhar Div.,  
The Oliver Corp.  
Harry J. Ferguson Co.  
Fetterman-Coffax Co.  
Food Machinery & Chemical Corp.,  
Packing Equipment Div.  
General Nailing Machine Corp.  
Hurt Conveyor Co.  
Island Equipment Corp.  
Lamson Corp.  
Lippmann Engineering Works  
Mathews Conveyor Co., West Coast  
Metzgar Conveyor Co.  
Paramount Mfg. Co.  
Rack Engineering Co. of Calif., Inc.  
Sage Equipment Co., Inc.  
Simplicity Engineering Co.  
Speedways Conveyors, Inc.  
Standard Conveyor Co.  
Stephens-Adamson Mfg. Co.

## CONVEYORS—slat

Alden Equipment Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
Bayer, A. J., Co.  
The E. W. Buschman Co.  
Chain Belt Co.  
Chantland Manufacturing Co.  
J. D. Christian Engineers  
Colson Equipment & Supply Co.  
Conveyor Co.  
A. B. Farquhar Div.,  
The Oliver Corp.  
Harry J. Ferguson Co.  
Fetterman-Coffax Co.

Hurt Conveyor Co.  
Jeffrey Mfg. Co.  
Lamson Corp.  
Link-Belt Co.  
Lippmann Engineering Works  
M-H Standard Corp.  
Mechanical Handling Systems, Inc.  
Mercury Industries, Inc.  
Sage Equipment Co., Inc.  
Standard Conveyor Co.  
Stephens-Adamson Mfg. Co.

## CONVEYORS—trolley

Alden Equipment Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
American MonoRail Co.  
The E. W. Buschman Co.  
Chainveyor Co.  
J. D. Christian Engineers  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
A. B. Farquhar Div.,  
The Oliver Corp.  
Hapman Conveyors, Inc., Div.  
of Hapman-Dutton Co.  
Hurt Conveyor Co.  
Lamson Corp.  
Link-Belt Co.  
Lippmann Engineering Works  
Mechanical Handling Systems, Inc.  
Rapid Standard Co.  
Richards-Wilcox Mfg. Co.  
Spanmaster Crane Div.,  
Jervis B. Webb Co. of Calif.  
Universal Cranehoist &  
Monorail Co.  
Jervis B. Webb Co. of Calif.

## CONVEYORS—vibrating

Carrier Conveyor Corp.  
J. D. Christian Engineers  
Hewitt-Robins, Inc.  
Jeffrey Mfg. Co.  
Link-Belt Co.  
Lippmann Engineering Works  
Richardson Scale Co.  
Simplicity Engineering Co.  
Stephens-Adamson Mfg. Co.  
Syntron Co.

## CONVEYORS—zipper

Stephens-Adamson Mfg. Co.

## CONVEYORS—special and other

Alvey-Ferguson Co.,  
West Coast, Inc. (vertical)  
Bosworth Mfg. Co. (vertical)  
The E. W. Buschman Co.  
Cambridge Wire Cloth Co.  
(woven wire)  
Carrier Conveyor Corp.  
(horizontal & vertical)  
Chainveyor Corp.  
(combination power and free)  
Chantland Manufacturing Co.  
J. D. Christian Engineers  
A. B. Farquhar Div.,  
The Oliver Corp. (bulk)  
Feedrail Corp.  
(electrification systems)  
Fetterman-Coffax Co. (vertical)  
Flexovoy Mfg. Co. (flexible)  
Flexible Steel Lacing Co.  
(rubber repair material for belt conveyors)  
Hapman Conveyors, Inc., Div. of  
Hapman-Dutton Co. (pan)  
Jeffrey Mfg. Co.  
Joy Mfg. Co. (pre-engineered pipe  
truss frame conveyor sections &  
components)  
Lamson Corp.  
Link-Belt Co. (oscillating, truck tow,  
reciprocating feeders, vertical)  
Mathews Conveyor Co.,  
West Coast, Inc. (vertical)  
May-Fran Engineering, Inc.  
(steel belt)  
Mechanical Handling Systems, Inc.  
(vertical)  
Mercury Industries, Inc.  
Metzgar Conveyor Co. (nylon wheel,  
midgut wheel, bearing roller)  
New London Engineering Co.  
Pacific Coast Industrial Equipment  
Corp. (special)  
Pack Engineering Co. of Calif., Inc.  
Sage Equipment Co., Inc.  
Sandvik Steel, Inc. (belt steel)  
Speedways Conveyors, Inc.  
Stephens-Adamson Mfg. Co.  
(vertical)  
Union Steel Products Co. (wire)  
Universal Cranehoist &  
Monorail Co.  
Wehle Conveyor Co. (floor to floor)  
The Wilkie Co. (telescopic)  
Wire & Iron Products, Inc.  
(guard panels for overhead)



# CRANES, hand power — ELEVATORS, belt

## CRANES—hand power

Alden Equipment Co.  
All-State Engineering Co., Inc.  
American Chain & Cable Co.  
American MonoRail Co.  
Barrett-Cravens Co.  
Chisholm-Moore Hoist Div.,  
Columbus McKinnon Chain Corp.  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
Conco Engineering Works  
Crane Hoist Engineering Corp.  
CraneVeyor Corp.  
Cyclops Iron Works  
Downs Crane & Hoist Co.  
Ederer Engineering Co.  
Harnischfeger Corp.  
Industrial Crane & Hoist Div.,  
Borg-Warner Corp.  
Lewis-Shepard Products, Inc.  
Manning, Maxwell & Moore, Inc.,  
Shaw-Box Crane & Hoist Div.  
Moffett Engineering, Inc.  
Ohio Hoist & Mfg. Co., Inc.  
Ohio Tramrail Div.,  
The Forker Corp.  
Orton Crane & Shovel Co.  
Philadelphia Chain Block  
& Mfg. Co.  
Reading Crane & Hoist  
Revolator Co.  
Richards-Wilcox Mfg. Co.  
Robbins & Myers, Inc.  
Hoist & Crane Div.  
Ruger Equipment, Inc.  
Schultz Materials Handling Corp.  
Shepard Niles Crane & Hoist Corp.  
Spanmaster Crane Div.,  
Jervis B. Webb Co. of Calif.  
Star Iron & Steel Co.  
Unit Mfg. Co.  
Universal Cranehoist & Monorail Co.  
Whiting Corp.  
Wright Hoist Div. of American  
Chain & Cable Co., Inc.

## CRANES—jib, pillar, swing, bracket

Alden Equipment Co.  
All-State Engineering Co., Inc.  
American Chain & Cable Co.  
American MonoRail Co.  
Barrett-Cravens Co.  
Chisholm-Moore Hoist Div.,  
Columbus McKinnon Chain Corp.  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
Conco Engineering Works  
Crane Hoist Engineering Corp.  
CraneVeyor Corp.  
Cyclops Iron Works  
Downs Crane & Hoist Co.  
Ederer Engineering Co.  
Harnischfeger Corp.  
Industrial Crane & Hoist Div.,  
Borg-Warner Corp.  
Louden Machinery Co.  
Manning, Maxwell & Moore, Inc.,  
Shaw-Box Crane & Hoist Div.  
Moffett Engineering, Inc.  
Nichols Conveyor  
& Engineering Co., Inc.  
Ohio Hoist & Mfg. Co.  
Ohio Tramrail Div.,  
The Forker Corp.  
Orton Crane & Shovel Co.  
Reading Crane & Hoist Corp.  
Richards-Wilcox Mfg. Co.  
Schultz Materials Handling Corp.  
Shepard Niles Crane & Hoist Corp.  
Spanmaster Crane Div.,  
Jervis B. Webb Co. of Calif.  
Universal Cranehoist & Monorail Co.  
Whiting Corp.  
Wright Hoist Div. of American  
Chain & Cable Co., Inc.  
Yuba Mfg. Co.

## CRANES—overhead, double beam

All-State Engineering Co., Inc.  
American Chain & Cable Co.  
American Crane & Hoist Corp.  
American MonoRail Co.  
Barrett-Cravens Co.  
Berger Engineering Co.  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
Conco Engineering Works  
Crane Hoist Engineering Corp.  
CraneVeyor Corp.  
Cyclops Iron Works  
Downs Crane & Hoist Co.  
Ederer Engineering Co.  
Harnischfeger Corp.  
Industrial Crane & Hoist Div.,  
Borg-Warner Corp.  
Louden Machinery Co.  
Manning, Maxwell & Moore, Inc.,  
Shaw-Box Crane & Hoist Div.  
Moffett Engineering, Inc.  
Noble Co.  
Northern Engineering Works  
Ohio Hoist & Mfg. Co., Inc.  
Ohio Tramrail Div.,  
The Forker Corp.

Orton Crane & Shovel Co.  
Reading Crane & Hoist Corp.  
Richards-Wilcox Mfg. Co.  
Robbins & Myers, Inc.  
Hoist & Crane Div.  
Schultz Materials Handling Corp.  
Spanmaster Crane Div.,  
Jervis B. Webb Co. of Calif.  
Star Iron & Steel Co.  
Universal Cranehoist &  
Monorail Co.  
Wright Hoist Div. of American  
Chain & Cable Co., Inc.  
Yuba Mfg. Co.

## CRANES—overhead, electric and electric traveling

Alden Equipment Co.  
All-State Engineering Co., Inc.  
American Chain & Cable Co.  
American Crane & Hoist Co.  
American MonoRail Co.  
Berger Engineering Co.  
Conco Engineering Works  
Crane Hoist Engineering Corp.  
CraneVeyor Corp.  
Cyclops Iron Works  
Downs Crane & Hoist Co.  
Ederer Engineering Co.  
Harnischfeger Corp.  
Industrial Crane & Hoist Div.,  
Borg-Warner Corp.  
Louden Machinery Co.  
Manning, Maxwell & Moore, Inc.,  
Shaw-Box Crane & Hoist Div.  
Moffett Engineering, Inc.  
Noble Co.  
Ohio Hoist &  
Manufacturing Co., Inc.  
Ohio Tramrail Div.,  
The Forker Corp.  
Orton Crane & Shovel Co.  
Pacific Coast Engineering Co.  
Reading Crane & Hoist Corp.  
Richards-Wilcox Mfg. Co.  
Robbins & Myers, Inc.  
Hoist & Crane Div.  
Schultz Materials Handling Corp.  
Shepard Niles Crane & Hoist Corp.  
Spanmaster Crane Div.,  
Jervis B. Webb Co. of Calif.  
Star Iron & Steel Co.  
Universal Cranehoist  
& Monorail Co.  
Whiting Corp.  
Wright Hoist Div. of American  
Chain & Cable Co., Inc.  
Yuba Mfg. Co.

## CRANES—overhead, foundry

Alden Equipment Co.  
All-State Engineering Co., Inc.  
American Chain & Cable Co.  
American MonoRail Co.  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
Conco Engineering Works  
Crane Hoist Engineering Corp.  
CraneVeyor Corp.  
Cyclops Iron Works  
Ederer Engineering Co.  
Harnischfeger Corp.  
Industrial Crane & Hoist Div.,  
Borg-Warner Corp.  
Louden Machinery Co.  
Moffett Engineering, Inc.  
Noble Co.  
Northern Engineering Works  
Ohio Hoist &  
Manufacturing Co., Inc.  
Ohio Tramrail Div.,  
The Forker Corp.  
Pacific Coast Engineering Co.  
Reading Crane & Hoist Corp.  
Richards-Wilcox Mfg. Co.  
Schultz Materials Handling Corp.  
Shepard Niles Crane & Hoist Corp.  
Spanmaster Crane Div.,  
Jervis B. Webb Co. of Calif.  
Universal Cranehoist & Monorail Co.  
Whiting Corp.  
Wright Hoist Div. of  
American Chain & Cable Co., Inc.

## CRANES—overhead, hand power traveling

Alden Equipment Co.  
All-State Engineering Co., Inc.  
American Chain & Cable Co.  
American Crane & Hoist Corp.  
American MonoRail Co.  
Berger Engineering Co.  
Chisholm-Moore Hoist Div.,  
Columbus-McKinnon Chain Corp.  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Corp.  
Conco Engineering Works  
Crane Hoist Engineering Corp.  
CraneVeyor Corp.  
Cyclops Iron Works  
Ederer Engineering Co.

Harnischfeger Corp.  
Industrial Crane & Hoist Div.,  
Borg-Warner Corp.  
Koehring Co.  
Louden Machinery Co.  
Manning, Maxwell & Moore, Inc.,  
Shaw-Box Crane & Hoist Div.  
Moffett Engineering Co., Inc.  
Ohio Hoist &  
Manufacturing Co., Inc.  
Ohio Tramrail Div.,  
The Forker Corp.  
Orton Crane & Shovel Co.  
Reading Crane & Hoist Corp.  
Richards-Wilcox Mfg. Co.  
Schultz Materials Handling Corp.  
Shepard Niles Crane & Hoist Corp.  
Spanmaster Crane Div.,  
Jervis B. Webb Co. of Calif.  
Universal Cranehoist & Monorail Co.  
Whiting Corp.  
Wright Hoist Div. of American  
Chain & Cable Co., Inc.

## CRANES—overhead, "I" beam

All-State Engineering Co., Inc.  
American Chain & Cable Co.  
American Crane & Hoist Corp.  
Berger Engineering Co.  
Chisholm-Moore Hoist Div.,  
Columbus-McKinnon Chain Corp.  
Conco Engineering Works  
Crane Hoist Engineering Corp.  
CraneVeyor Corp.  
Cyclops Iron Works  
Ederer Engineering Co.  
Harnischfeger Corp.  
Industrial Crane & Hoist Div.,  
Borg-Warner Corp.  
Louden Machinery Co.  
Manning, Maxwell & Moore, Inc.,  
Shaw-Box Crane & Hoist Div.  
Moffett Engineering, Inc.  
Northern Engineering Works  
Ohio Hoist & Mfg. Co., Inc.  
Ohio Tramrail Div.,  
The Forker Corp.  
Orton Crane & Shovel Co.  
Reading Crane & Hoist Corp.  
Richards-Wilcox Mfg. Co.  
Robbins & Myers, Inc.,  
Hoist & Crane Div.  
Schultz Materials Handling Corp.  
Shepard Niles Crane & Hoist Corp.  
Spanmaster Crane Div.,  
Jervis B. Webb Co. of Calif.  
Star Iron & Steel Co.  
Universal Cranehoist & Monorail Co.  
Whiting Corp.  
Wright Hoist Div. of American  
Chain & Cable Co., Inc.

## CRANES—yard (truck, tractor)

Allis-Chalmers Mfg. Co.,  
Construction Machinery Div.  
Anthony Co.  
Austin-Western Co.  
Baker-Raulang Co.  
Baldwin-Lima-Hamilton Corp.  
Boman Co.  
Bucyrus-Erie Co.  
Coles Cranes, Inc.  
Cyclops Iron Works  
John Deere Industrial Div.  
Gar Wood Industries, Inc.  
Hanson Clutch & Machinery Co.  
Harnischfeger Corp.  
"HH" Manufacturers  
Hyster Co.  
Insley Mfg. Corp.  
Koehring Co.  
Marion Power Shovel Co.  
Maxl Corp.  
Moffett Engineering, Inc.  
Northwest Engineering Co.  
Oliver Corp.  
Orton Crane & Shovel Co.  
"Quick-Way" Truck Shovel Co.  
Shepard Niles Crane & Hoist Corp.  
Shield Bantam Co.  
Silent Hoist & Crane Co.  
Thew Shovel Co.  
Towmotor Corp.

## CRANES—other

Alden Equipment Co. (stabilized)  
All-State Engineering Co., Inc.  
(stacker)  
American Hoist & Derrick Co.  
(crawler truck locomotive)  
American MonoRail Co. (stacker)  
Austin-Western Co. (hydraulic)  
Barrett-Cravens Co. (portable)  
Crane Hoist Engineering Corp.  
Duct-O-Wire (crane & monorail  
electrification)  
Feedrail Corp.  
(electrification systems)  
Grand Specialties Co.  
(portable hydraulic)  
Kolman Manufacturing Co.  
(yard portable)

Mefco Sales & Service Corp.  
(controls for precision  
operation & weighing)  
Moffett Engineering, Inc.  
Noble Co.  
Orton Crane & Shovel Co.  
Pacific Car & Foundry Co.  
(crane booms and tractor)  
Revolator Co. (portable)  
Shepard Niles Crane & Hoist Corp.  
Uhrden, Inc.  
(hydraulic floor & trucks)

## DOCK BOARDS

Bayer, A. J. Co.  
Beacon Machinery, Inc.  
Buildog Pallet Co.  
Copperloy Corp.  
Elizabeth Iron Works, Inc.  
Hartman Metal Fabricators, Inc.  
Karl A. Herman Co.  
Iron Works, Inc.  
Joyce-Cridland Co.  
(hydraulic adjustable)  
Kelley Co.  
F. H. Langeskamp Co.  
Magline, Inc.  
Magnesium Fabricators  
Penco Engineering Co.  
Roll Rite Corp.  
Rotary Lift Co.  
Rowe Methods, Inc.  
Stephens-Adamson Mfg. Co.  
(drives & drive equipment)  
Vac-U-Lift Co.  
(vacuum & lifting attachment)  
Washington Aluminum Co., Inc.  
The Wayne Pump Co.  
Woodford Manufacturing Co.

## DOLLIES—(see TRUCKS— dolly)

## DOOR CONTROLS

Bond Foundry & Machine Co.  
Diamond Chain Co., Inc.  
Link-Belt Co.  
(drives & drive equipment)  
Richards-Wilcox Manufacturing Co.  
Tulsa Winch Div., Vickers, Inc.

## DRIVES AND DRIVE COMPONENTS

Chain Belt Co.  
Cleveland Worm & Gear Co.  
Diamond Chain Co., Inc.  
Dodge Manufacturing Corp.  
The Falk Corp.  
Fairbanks, Morse & Co.  
Grand Specialties Co.  
Jeffrey Mfg. Co.  
Link-Belt Co.  
Luffkin Foundry & Machine Co.  
Reeves Pulley Co.

## ELEVATORS—barrel, package, etc.

Alvey-Conveyor Manufacturing Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
Barrett-Cravens Co.  
Bodinson Mfg. Co.  
Chain Belt Co.  
J. D. Christian Engineers  
Colson Corp.  
Economy Engineering Co.  
Flexoveyor Mfg. Co.  
Jeffrey Mfg. Co.  
Link-Belt Co.  
Lippmann Engineering Works  
Mathews Conveyor Co., West Coast  
Mechanical Handling Systems, Inc.  
West Bend Equipment Corp.

## ELEVATORS—belt

Alden Equipment Co.  
American Rubber Co.  
Bauman Manufacturing Co., Inc.  
Belt Corp.  
Bodinson Mfg. Co.  
Chain Belt Co.  
J. D. Christian Engineers  
L. P. Degen Belting Co.  
Fetterman-Coffax Co.  
Fort Worth Steel & Machinery Co.  
General Nailing Machine Corp.  
B. F. Goodrich  
Industrial Products Co.  
Hewitt-Robins, Inc.  
Hurt Conveyor Co.  
Jeffrey Mfg. Co.  
M-H Standard Corp.  
Mechanical Handling Systems, Inc.  
New York Belting & Packing Co.  
Nichols Conveyor &  
Engineering Co., Inc.  
Paramount Mfg. Co.  
Raybestos-Manhattan, Inc.  
Manhattan Rubber Div.  
Stephens-Adamson Mfg. Co.  
United States Rubber Co.  
Mechanical Goods Div.



# ELEVATORS, bucket — HOISTS, traveling

Universal Hoist Co.  
Weigh Right Automatic Scale Co.

## ELEVATORS—bucket

Alden Equipment Co.  
Bodinson Mfg. Co.  
Chain Belt Co.  
J. D. Christian Engineers  
Conveyor Co.  
L. P. Degen Belting Co.  
Fetterman-Colefax Co.  
Hewitt-Robins, Inc.  
Hurt Conveyor Co.  
Jeffrey Mfg. Co.  
Link-Belt Co.  
Lippmann Engineering Works  
M-H Standard Corp.  
Mechanical Handling Systems, Inc.  
Nichols Conveyor & Engineering Co., Inc.  
Noble Co.  
Raybestos-Manhattan, Inc.  
Manhattan Rubber Div.  
Screw Conveyor Pacific Corp.  
Stephens-Adamson Mfg. Co.  
Universal Hoist Co.  
Weigh Right Automatic Scale Co.

## ELEVATORS—continuous flow

Bodinson Mfg. Co.  
J. D. Christian Engineers  
Fetterman-Colefax Co.  
Hurt Conveyor Co.  
Jeffrey Mfg. Co.  
Link-Belt Co.  
Mechanical Handling Systems, Inc.  
Paramount Mfg. Co.  
Stephens-Adamson Mfg. Co.  
Weigh Right Automatic Scale Co.  
West Bend Equipment Co.

## ELEVATORS—portable tiering

Barrett-Cravens Co.  
Belt Corp.  
Boman Co.  
J. D. Christian Engineers  
Clyde Iron Works  
Colson Corp.  
Colson Equipment & Supply Co.  
Economy Engineering Co.  
Flexovexor Mfg. Co.  
Jeffrey Mfg. Co.  
Lee Engineering Co.  
The Oster Manufacturing Co.  
Palmer-Shile Co.  
Paramount Mfg. Co.  
Stephens-Adamson Manufacturing Co.  
Tubular Structures Corp. of America  
Uhrden, Inc.  
West Bend Equipment Co.

## ELEVATORS—other

American Monorail Co. (monorail)  
Barrett-Cravens Co. (floor to floor)  
Colson Corp.  
Flexovexor Mfg. Co. (bag)  
Globe Hoist Co. (freight, passenger, oil, hydraulic)  
Link-Belt Co. (screw & vertical)  
Nichols Conveyor & Engineering Co., Inc.  
Power-Curve Conveyor Co. (bag)  
Rotary Lift Co. (freight & passenger automatic pallet)  
Stephens-Adamson Manufacturing Co. (sipper)  
Universal Hoist & Mfg. Co.  
West Bend Equipment Corp. (freight)

## GRABBS

Alden Equipment Co.  
Cady Metal Fabricating Co.  
Cullen-Friedstedt Co.  
Downs Crane & Hoist Co.  
Heppenstall Co.  
Hyster Co.  
Iron Works, Inc.  
Mansaver Industries, Inc.  
Ohio Tramrail Div.  
The Forker Corp.  
Palmer-Shile Co.  
Rack Engineering Co. of Calif. Inc.  
Universal Cranehoist & Monorail Co.

## GRAPPLES

Cullen-Friedstedt Co.  
Cyclops Iron Works  
Downs Crane & Hoist Co.  
Drott Manufacturing Co.  
Ederer Engineering Co.  
Electric Steel Foundry Co.  
Mansaver Industries, Inc.  
Ohio Tramrail Div.  
The Forker Corp.  
Schield Bantam Co.  
Star Iron & Steel Co. (lumber)  
Universal Cranehoist & Monorail Co.

## HOISTS—air

Aro Equipment Corp.  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
CraneVexor Corp.  
Curtis Mfg. Co.  
Engineering Products Co.  
Ingersoll-Rand Co.  
Keller Tool Div.  
Gardner-Denver Co.  
Moffett Engineering, Inc.  
Noble Co.  
Ohio Tramrail Div.  
The Forker Corp.  
Rotary Lift Co.  
Sauerman Bros. Inc.  
Shepard Niles Crane & Hoist Corp.  
Schultz Material Handling Corp.  
Thor Power Tool Co.  
The Wayne Pump Co.

## HOISTS—bucket

Ederer Engineering Co.  
Harnischfeger Corp.  
Northern Engineering Works  
Ohio Hoist & Mfg. Co., Inc.  
Shepard Niles Crane & Hoist Corp.  
Stephens-Adamson Mfg. Co.

## HOISTS—chain

American Chain & Cable Co.  
Aro Equipment Corp.  
Boman Co.  
Chester Hoist Div., National Screw & Mfg. Co.  
Chisholm-Moore Hoist Div., Columbus-McKinnon Chain Corp.  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
Coffing Hoist Div., Duff Norton Co.  
Conco Engineering Works  
CraneVexor Corp.  
Cyclops Iron Works  
Ederer Engineering Co.  
Grand Specialties Co.  
Harnischfeger Corp.  
Moffett Engineering, Inc.  
Northern Engineering Works  
Ohio Hoist & Mfg. Co., Inc.  
Ohio Tramrail Div.  
The Forker Corp.  
Philadelphia Chain Block & Mfg. Co.  
Reading Crane & Hoist Corp.  
Robbins & Myers, Inc., Hoist & Crane Div.  
Shepard Niles Crane & Hoist Corp.  
Thorn Machine Co.  
Universal Cranehoist & Monorail Co.  
Wright Hoist Div. of American Chain & Cable Co., Inc.  
Yale & Towne Mfg. Co.,

## HOISTS—crane

American Hoist & Derrick Co.  
Berger Engineering Co.  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
Clyde Iron Works  
Conco Engineering Works  
CraneVexor Corp.  
Cyclops Iron Works  
Downs Crane & Hoist Co.  
Ederer Engineering Co.  
Grand Specialties Co.  
"HH" Manufacturers  
Manning, Maxwell & Moore, Inc., Shaw-Box Crane & Hoist Div.  
Moffett Engineering, Inc.  
Northern Engineering Works  
Ohio Hoist & Mfg. Co., Inc.  
Ohio Tramrail Div.  
The Forker Corp.  
Reading Crane & Hoist Corp.  
Robbins & Myers, Inc., Hoist & Crane Div.  
Ruger Equipment, Inc.  
Shepard Niles Crane & Hoist Corp.  
Silent Hoist & Crane Co.  
Schultz Materials Handling Corp.  
Stephens-Adamson Mfg. Co.  
Unit Mfg. Co.  
Universal Cranehoist & Monorail Co.  
Wright Hoist Div. of American Chain & Cable Co., Inc.

## HOISTS—derrick

American Hoist & Derrick Co.  
Berger Engineering Co.  
Clyde Iron Works  
Manning, Maxwell & Moore, Inc., Shaw-Box Crane & Hoist Div.  
Moffett Engineering, Inc.  
Sasgen Derrick Co.  
Shepard Niles Crane & Hoist Corp.  
Silent Hoist & Crane Co.

## HOISTS—drum

American Engineering Co.  
American Hoist & Crane Co.

Berger Engineering Co.  
J. D. Christian Engineers  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
Clyde Iron Works  
Ederer Engineering Co.  
Electrolift, Inc.  
Grand Specialties Co.  
Hewitt-Robins, Inc.  
Ingersoll-Rand Co.  
Manning, Maxwell & Moore, Inc., Shaw-Box Crane & Hoist Div.  
Moffett Engineering, Inc.  
Ohio Hoist & Mfg. Co., Inc.  
Pacific Car & Foundry Co.  
Robbins & Myers, Inc., Hoist & Crane Div.  
Sauerman Bros., Inc.  
Shepard Niles Crane & Hoist Corp.  
Silent Hoist & Crane Co.  
Wright Hoist Div. of American Chain & Cable Co., Inc.

## HOISTS—electric

American Chain & Cable Co.  
American Engineering Co.  
American Hoist & Derrick Co.  
Barrett-Cravens Co.  
Berger Engineering Co.  
Chester Hoist Div., National Screw & Mfg. Co.  
Chisholm-Moore Hoist Div., Columbus-McKinnon Chain Corp.  
J. D. Christian Engineers  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
Clyde Iron Works  
Coffing Hoist Div., Duff-Norton Co.  
Colson Corp.  
Conco Engineering Works  
CraneVexor Corp.  
Cyclops Iron Works  
Downs Crane & Hoist Co.  
Duff-Norton Co.  
Ederer Engineering Co.  
Electrolift, Inc.  
Globe Hoist Co.  
Grand Specialties Co.  
Harnischfeger Corp.  
Ingersoll-Rand Co.  
Joy Mfg. Co.  
Manning, Maxwell & Moore, Inc., Shaw-Box Crane & Hoist Div.  
Moffett Engineering, Inc.  
Northern Engineering Works  
Ohio Tramrail Div.  
The Forker Corp.  
Pacific Coast Engineering Co.  
Reading Crane & Hoist Corp.  
Robbins & Myers, Inc., Hoist & Crane Div.  
Sasgen Derrick Co.  
Sauerman Bros. Inc.  
Schultz Materials Handling Corp.  
Shepard Niles Crane & Hoist Corp.  
Silent Hoist & Crane Co.  
Stephens-Adamson Mfg. Co.  
Unit Mfg. Co.  
Universal Cranehoist & Monorail Co.  
Wright Hoist Div. of American Chain & Cable Co., Inc.  
Yale & Towne Mfg. Co.

## HOISTS—hand

American Chain & Cable Co.  
Chisholm-Moore Hoist Div., Columbus-McKinnon Chain Corp.  
Coffing Hoist Div., Duff-Norton Co.  
Colson Corp.  
Conco Engineering Works  
CraneVexor Corp.  
Cyclops Iron Works  
Downs Crane & Hoist Co.  
Duff-Norton Co.  
Grand Specialties Co.  
Grip-Hoist, Inc.  
Harnischfeger Corp.  
Manning, Maxwell & Moore, Inc., Shaw-Box Crane & Hoist Div.  
Moffett Engineering, Inc.  
Philadelphia Chain Block & Mfg. Co.  
Reading Crane & Hoist Corp.  
Robbins & Myers, Inc., Hoist & Crane Div.  
Ruger Equipment, Inc.  
Sasgen Derrick Co.  
Schultz Material Handling Corp.  
Unit Manufacturing Co.  
Universal Cranehoist & Monorail Co.  
Wright Hoist Div. of American Chain & Cable Co., Inc.  
Yale & Towne Mfg. Co.

## HOISTS—hydraulic

Anthony Co.  
Austin-Western Co.  
Beacon Machinery, Inc.  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
Colson Corp.  
Curtis Mfg. Co.  
Engineering Products Co.  
Gar Wood Industries, Inc.  
Globe Hoist Co.  
Grand Specialties Co.

Ingersoll Kalamazoo Div., Borg-Warner Corp.  
Moffett Engineering, Inc.  
Nichols Conveyor & Engineering Co., Inc.  
Pacific Coast Engineering Co.  
Rotary Lift Co.  
Ruger Equipment, Inc.  
Schultz Materials Handling Corp.  
Silent Hoist & Crane Co.  
Unit Mfg. Co.  
The Wayne Pump Co.

## HOISTS—monorail

American Engineering Co.  
American Monorail Co.  
Chester Hoist Div., National Screw & Mfg. Co.  
Chisholm-Moore Hoist Div., Columbus-McKinnon Chain Corp.  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
Conco Engineering Co.  
CraneVexor Corp.  
Cyclops Iron Works  
Electrolift, Inc.  
Harnischfeger Corp.  
Louden Machinery Co.  
Manning, Maxwell & Moore, Inc., Shaw-Box Crane & Hoist Div.  
Moffett Engineering, Inc.  
Northern Engineering Works  
Ohio Tramrail Div.  
The Forker Corp.  
Reading Crane & Hoist Corp.  
Robbins & Myers, Inc., Hoist & Crane Div.  
Schultz Materials Handling Corp.  
Shepard Niles Crane & Hoist Corp.  
Spanmaster Crane Div., Jervis B. Webb Co. of Calif.  
Universal Cranehoist & Monorail Co.  
Wright Hoist Div. of American Chain & Cable Co., Inc.  
Yale & Towne Mfg. Co.

## HOISTS—portable

American Chain & Cable Co.  
Coffing Hoist Div., Duff-Norton Co.  
Colson Corp.  
Conco Engineering Works  
CraneVexor Corp.  
Duff-Norton Corp.  
Economy Engineering Co.  
Electrolift, Inc.  
Grand Specialties Co.  
Grip-Hoist, Inc.  
Harnischfeger Corp.  
Ingersoll-Rand Co.  
Manning, Maxwell & Moore, Inc., Shaw-Box Crane & Hoist Div.  
Moffett Engineering, Inc.  
Ohio Hoist & Mfg. Co., Inc.  
Reading Crane & Hoist Corp.  
Robbins & Myers, Inc., Hoist & Crane Div.  
Ruger Equipment, Inc.  
Schultz Materials Handling Corp.  
Shepard Niles Crane & Hoist Corp.  
Silent Hoist & Crane Co.  
Tubular Structures Corp. of America  
Unit Mfg. Co.  
Universal Cranehoist & Monorail Co.  
Wright Hoist Div. of American Chain & Cable Co., Inc.  
Yale & Towne Mfg. Co.

## HOISTS—skip

J. D. Christian Engineers  
Downs Crane & Hoist Co.  
Cost Reduction Equipment Co.  
Hewitt-Robins, Inc.  
Jeffrey Mfg. Co.  
Link-Belt Co.  
Moffett Engineering, Inc.  
Ohio Hoist & Mfg. Co., Inc.  
Shepard Niles Crane & Hoist Corp.  
Stephens-Adamson Mfg. Co.

## HOISTS—traveling

American Chain & Cable Co.  
American Engineering Co.  
American Hoist & Derrick Co.  
Chisholm-Moore Hoist Div., Columbus-McKinnon Chain Corp.  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
Conco Engineering Works  
CraneVexor Corp.  
Cyclops Iron Works  
Ederer Engineering Co.  
Electrolift, Inc.  
Harnischfeger Corp.  
Manning, Maxwell & Moore, Inc., Shaw-Box Crane & Hoist Div.  
Moffett Engineering, Inc.  
Northern Engineering Works  
Ohio Tramrail Div.  
The Forker Corp.  
Reading Crane & Hoist Corp.  
Robbins & Myers, Inc., Hoist & Crane Div.  
Schultz Materials Handling Corp.



## HOISTS, other — ROLLERS, conveyors

Shepard Niles Crane & Hoist Corp.  
Universal Cranehoist & Monorail Co.  
Wright Hoist Div. of American  
Chain & Cable Co., Inc.  
Yale & Towne Mfg. Co.

### HOISTS—other

CraneVeyor Corp.  
Ederer Engineering Co.  
Feedrail Corp. (electrification systems)  
GripHoist, Inc. (wire rope)  
Mefco Sales & Service  
(Controls for precision operation & weighing)  
Moffett Engineering, Inc.  
Ohio Hoist & Mfg. Co., Inc. (hoist scaffolding, hoist swing stage)  
Pacific Car & Foundry Co. (tractor)  
Shepard Niles Crane & Hoist Corp.  
Thorn Machine Co.  
Vac-U-Lift Co. (vacuum lifting attachment)

### HOPPERS

Alden Equipment Co.  
Bathey Mfg. Co.  
Bodinson Mfg. Co.  
Conveyor Co.  
Gar-Bro. Mfg. Co.  
Handling Equipment Corp.  
Iron Works, Inc.  
Lippmann Engineering Works  
Roura Iron Works, Inc.  
The Union Metal Mfg. Co.  
Washington Aluminum Co., Inc.

### IDLERS—conveyor

Bodinson Mfg. Co.  
J. D. Christian Engineers  
Conveyor Co.  
Holz Rubber Co.  
Jeffrey Mfg. Co.  
Lippmann Engineering Works  
Stephens-Adamson Mfg. Co.

### JACKS—hydraulic

Beacon Machinery, Inc.  
Duff-Norton Co.  
Globe Hoist Co.  
Hein-Werner Corp.  
Joyce-Cridland Co.  
Lewis-Shepard Products, Inc.  
Rotary Lift Co.  
Templeton, Kenly & Co.

### JACKS—lift

Colson Corp.  
Duff-Norton Co.  
Hamilton Caster & Mfg. Co.  
Hamilton Tool Co.  
Hein-Werner Corp.  
Ironbound Box & Lumber Co.  
Joyce-Cridland Co.  
Templeton, Kenly & Co.  
Thomas Truck & Caster Co.

### JACKS—screw

Duff-Norton Co.  
Hamilton Tool Co.  
Hein-Werner Corp.  
Joyce-Cridland Co.  
Saginaw Products Corp.  
Templeton, Kenly & Co.  
Whiting Corp.

### LOADERS, UNLOADERS—

portable, self-propelled,  
other

Allis-Chalmers Mfg. Co.  
(tractor shovels, bulldozers)  
American Hoist & Derrick Co.  
Barber-Greene Co.  
Beacon Machinery, Inc.  
Caterpillar Tractor Co.  
Dempster Brothers, Inc.  
(truck unit & container system)  
Drott Mfg. Corp.  
Evans Products Co.  
Fetterman-Colfax Co.  
Flexoveyor Mfg. Co.  
"RH" Manufacturers  
The Frank G. Hough Co.  
Ingersoll Kalamazoo Div.,  
Borg-Warner Corp.  
Link-Belt Co. (railroad car)  
Lippmann Engineering Works  
Marion Metal Products Co.  
(tailgate)  
Silent Hoist & Crane Co.  
Stephens-Adamson Mfg. Co.  
Thew Shovel Co. (shovels and  
attachments mounted on crawlers  
and rubber-tire carriers)  
Tractomotive Corp.

### LP-GAS CONVERSION

#### EQUIPMENT

American Liquid Gas Corp.  
Beam Products Mfg. Co.  
Bryant Mfg. Co.  
Century Gas Equipment Co.  
Jackson Mfg. Co.

#### MAGNETS

Eriez Mfg. Co.  
Universal Cranehoist & Monorail

#### MARKING EQUIPMENT

Diagraph-Bradley Industries, Inc.  
Adolph Gottschalk, Inc.  
Industrial Marketing Equipment Co.  
(automatic)  
P. F. O'Donnell Co.  
Standard-Knapp Div. of  
Emhart Mfg. Co.  
Weber Marking Systems Div.,  
Weber Addressing Machine  
Co., Inc.

#### PACKAGING MACHINERY

ABC Packaging Machine Corp.  
Bemis Brothers Bag Co.  
Container Stapling Corp.  
Derby Sealers, Inc.  
General Nailing Machine Corp.  
(box making, lidding machines)  
Ideal Stencil Machine Co.  
Nashua Package Sealing Div.,  
Nashua Corp.  
Pak-Rapid, Inc.  
Paramount Mfg. Co.  
Standard-Knapp Div. of  
Emhart Mfg. Co.  
H. L. Stoker Co.

#### PACKING MATERIAL

American Sisalkraft Corp.  
B. F. Goodrich  
Industrial Products Co.  
Hollywood Plastic Arts, Inc.  
Kimberly-Clark Corp.  
(cellulose cushioning)  
Masonite Corp.  
Orchard Paper Co.  
Quaker Pioneer Rubber Div.,  
H. K. Porter Co.  
Sackner Products, Inc.  
Sherman Paper Products Corp.  
of Calif.  
United States Rubber Co.,  
Mechanical Goods Div.

#### PALLET LOADERS

Aerol Co.  
Beacon Machinery Co.  
Drott Mfg. Corp.  
Food Machinery & Chemical Corp.,  
Packing Equipment Div.  
J. W. Greer Co.  
Ingersoll-Kalamazoo Div.,  
Borg-Warner Corp.  
Mathews Conveyor Co., West Coast  
The Oster Mfg. Co.  
Rotary Lift Co.  
Standard-Knapp Div. of  
Emhart Mfg. Co.

#### PALLETS

Auto Sheet Metal Works (steel)  
Bulldog Pallet Co.  
Hunter Metal Fabricators  
Hunter Woodworks  
Industrial Skid & Pallet Co.  
Ingersoll Kalamazoo Div.,  
Borg-Warner Corp.  
Ironbound Box & Lumber Co.  
Joint Saw Co.  
The Martin Bros., Container &  
Timber Products Co.  
Masonite Corp.  
Mid-West Wire Products Co., Inc.  
Multiframe of California, Inc.  
Petley, Inc.  
Pittsburgh Steel Products Div.,  
Pittsburgh Steel Co.  
Portco Corp.  
Powell Pressed Steel Company  
(steel)  
Rack Engineering Co. of Calif., Inc.  
(steel, wire)  
Republic Steel Corp.  
Roll Rite Corp.  
Signode Steel Strapping Co.  
Springport Steel Products Co.  
Union Metal Mfg. Co.  
Union Steel Products Co. (wire)  
Washington Aluminum Co., Inc.

#### PLATFORMS—loading

The Ballymore Co.  
Copperloy Corp.  
Hamilton Tool Co.  
Hartman Metal Fabricators  
Joyce Cridland Co. (hydraulic)  
Magline, Inc.

Powell Pressed Steel Co.  
Raymond Corp.  
Rotary Lift Co.  
Washington Aluminum Co., Inc.

#### PULLEYS—conveyor

American Pulley Co.  
R & J Dick Co.  
Conveyor Co.  
L. P. Degen Belting Co.  
Dodge Mfg. Co.  
Fetterman-Colfax Co.  
Fort Worth Steel & Machinery Co.  
General Nailing Machine Corp.  
Hewitt-Robins, Inc.  
Holz Rubber Co.  
Hurt Conveyor Co.  
Jeffrey Mfg. Co.  
Kolman Mfg. Co.  
Link-Belt Co.  
Lippmann Engineering Works  
Mercury Industries, Inc.  
New London Engineering Co.  
Paramount Mfg. Co.  
Stephens-Adamson Mfg. Co.  
United States Rubber Co.,  
Mechanical Goods Div.  
Yuba Mfg. Co.

#### PULLEYS—other

American Pulley Co.  
(flat belt and V-belt)  
R & J Dick Co.  
Fort Worth Steel & Machinery Co.  
(V-drive)  
Gerbing Mfg. Co. (variable speed)  
Holz Rubber Co. (lagged)  
Hurt Conveyor Co.  
Link-Belt Co. (power transmission)  
Mercury Industries, Inc. (sanitized)  
New London Engineering Co.  
(aluminum)  
Reeves Pulley Co.  
J. E. Rhoads & Sons  
Yuba Mfg. Co. (internal driven)

#### PUMPS—material

##### handling

Blackmer Pump Co.  
(liquid handling)  
Carver Pump Co.  
Deming Co.  
Eastide Mfg. Co.  
(swimming pool pumps)  
Fairbanks, Morse & Co.  
Goulds Pumps, Inc.  
(liquid handling)  
Granberg Corp.  
Ingersoll-Rand Co.  
Kinney Mfg. Div.,  
The New York Air Brake Co.  
Lincoln Engineering Co., Div. of the  
McNeil Machine &  
Engineering Co.  
Marlow Pumps, Div. of  
Bell & Gossett Co.  
Pacific Pumps, Inc.  
(liquid handling)  
Pacific Pumping Co.  
Geo. D. Roper Corp.  
Tuthill Pump Co. (rotary)  
Uhrden, Inc.  
Viking Pump Co.  
Warren Pumps, Inc.  
The Wayne Pump Co.  
John Wood Co.

#### RACKS—pallet

Alden Equipment Co.  
American Metal Products Co.  
Auto Sheet Metal Works  
Bathey Mfg. Co.  
Colson Corp.  
Equipment Mfg., Inc.  
Handling Equipment Corp.  
Hartman Metal Fabricators, Inc.  
The Hollander Mfg. Co.  
Industrial Skid & Pallet Co.  
Johnson & Flaherty Mfg. Co.  
Lewis-Shepard Products, Inc.  
Mechanical Handling Systems, Inc.  
M-H Standard Corp.  
Multiframe of California, Inc.  
Paltier Corp.  
Petley, Inc.  
Rack Engineering Co. of Calif., Inc.  
Republic Steel Corp.  
Sturdi-Bilt Engineering Co.  
Tube-Strut Div., Tubular Structures  
Corp. of America  
Unistrut Products Co.  
The Wayne Pump Co.  
West Bend Equipment Corp.

#### RACKS—storage

Alden Equipment Co.  
American Metal Products Co.  
Auto Sheet Metal Works  
Barrett-Cravens Co.  
Bathey Mfg. Co.  
Borroughs Mfg. Co.  
Colson Corp.  
Deluxe Metal Furniture Co.

Equipment Manufacturing, Inc.  
Eupto Div.,  
Aurora Equipment Co.  
Fort Steuben Metal Products Co.  
Handling Equipment Corp.  
Hartman Metal Fabricators, Inc.  
The Hollander Mfg. Co.  
Johnson & Flaherty Mfg. Co.  
Lamson Corp.  
Lewis-Shepard Products, Inc.  
Mechanical Handling Systems, Inc.  
M-H Standard Corp.  
Multiframe of California, Inc.  
Paltier Corp.  
Petley, Inc.  
Pollard Bros. Mfg. Co.  
Rack Engineering Co. of Calif., Inc.  
Rapid Standard Co.  
Republic Steel Corp.  
Roll Rite Corp.  
Standard Pressed Steel Co.  
Sturdi-Bilt Engineering Co.  
Tube-Strut Div., Tubular Structures  
Corp. of America  
Unistrut Products Co.  
Unistrut Products Co.  
West Bend Equipment Corp.  
Worley & Co.

#### RACKS—other

American Metal Products Co.  
(skid, drum, tiering, coil)  
American Pulley Co., The  
(barrel, cradles)  
Barrett-Cravens Co. (barrel, drum)  
Blackman Plastics (plastic)  
Borroughs Mfg. Co. (shelving)  
Brooks & Perkins, Inc. (transfer)  
Butler Mfg. Co., Special Products  
Div. (custom for steel plants  
& warehouses)  
Dico Co. (drain stands)  
Chas. Wm. Doeppke Mfg. Co.  
(tote box)  
Elizabeth Iron Works, Inc.  
(portable)  
Equipment Manufacturing, Inc.  
(coil)  
Flex Angle Corp. (flexangle  
universal slotted angle systems)  
Handling Equipment Corp.  
(tubular)  
Hartman Metal Fabricators, Inc.  
(die storage, drum storage,  
bar stock storage)  
Hollander Mfg. Co. (specialized)  
Jarke Manufacturing Co. (wire  
coil, strip coil, bar & sheet)  
Lewis-Shepard Products, Inc.  
Mechanical Handling Systems, Inc.  
M-H Standard Corp.  
(gravity storage)  
Multiframe of California, Inc.  
Paltier Corp.  
Penco Metal Products Div.,  
Alan Wood Steel Div.  
(steel lockers & cabinets)  
Pollard Bros. Mfg. Co. (die)  
Pressteel Co. (bench)  
Rack Engineering Co. of Calif., Inc.  
(rack conveyors, special design)  
Standard Pressed Steel Co.  
(adjustable shelving)  
Sturdi-Bilt Engineering Co.  
(dies, skids, bulk)  
Tube-Strut Div., Tubular Structures  
Corp. of America  
Unistrut Products Co.

#### RAMPS—loading, etc.

Bayer, A. J., Co.  
Copperloy Corp.  
Elizabeth Iron Works, Inc.  
Globe Hoist Co.  
Karl A. Herman Co.  
Kelley Co.  
Magline, Inc.  
Magnesium Co. of America  
Magnesium Fabricators, Inc.  
Penco Engineering Co.  
Rotary Lift Co.  
Rowe Methods, Inc.  
Washington Aluminum Co., Inc.

#### ROLLERS—conveyor

Alden Equipment Co.  
Alvey-Ferguson Co.,  
West Coast, Inc.  
Arrow Products, Inc.  
Boman Co.  
Brown Rubber Co.  
Chain Belt Co.  
Colson Equipment & Supply Co.  
Conveyor Co.  
Harry J. Ferguson Co.  
General Nailing Machine Co.  
Holz Rubber Co.  
Hurt Conveyor Co.  
Lamson Corp.  
Link-Belt Co.  
Magline, Inc.  
Mathews Conveyor Co., West Coast  
Oliver Corp.  
Rack Engineering Co. of Calif., Inc.  
Rapid Standard Co.  
Saginaw Products Corp.  
Stephens-Adamson Mfg. Co.  
Thistle Roller & Mfg. Co.



## ROLLERS, other — TROLLEYS

### ROLLERS—other

Brown Rubber Co.  
Holz Rubber Co. (rubber)  
Roll Rite Corp. (pallets)  
Thistle Roller & Mfg. Co.

### SCALES—automatic

Fairbanks, Morse & Co.  
Howe Scale Co.  
Richardson Scale Co.  
Streeter-Amet Co.  
Taller & Cooper, Inc.  
Toledo Scale Co.

### SCALES—conveyor

Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
Conveyor Co.  
Fairbanks, Morse & Co.  
Howe Scale Co.  
Richardson Scale Co.  
Toledo Scale Co.

### SCALES—counting

Fairbanks, Morse & Co.  
Howe Scale Co.  
Taller & Cooper, Inc.  
Technibilt Corp.

### SCALES—monorail

Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
Fairbanks, Morse & Co.  
Howe Scale Co.  
Ohio Tramrail Div.,  
The Forker Corp.  
Toledo Scale Co.  
Universal Cranehoist &  
Monorail Co.

### SCALES—packaging

Fairbanks, Morse & Co.  
General Nailing Machine Corp.  
Howe Scale Co.  
Richardson Scale Co.  
Toledo Scale Co.  
Weigh Right Automatic Scale Co.

### SCALES—portable

Fairbanks, Morse & Co.  
Howe Scale Co.  
Mefco Sales & Service  
Richardson Scale Co.  
Toledo Scale Co.

### SCALES—warehouse

Fairbanks, Morse & Co.  
Howe Scale Co.  
Taller & Cooper, Inc.  
Toledo Scale Co.  
Technibilt Corp.

### SCALES—other

Fairbanks, Morse & Co.  
Harnischfeger Corp. (crane scale)  
Howe Scale Co.  
Hydroway Scales, Inc. (crane)  
Martin-Decker Corp.  
(lift-truck, crane weight  
indicators, hook scales,  
tensionmeters)  
Streeter-Amet Co.  
Toledo Scale Co. (motor truck)

### SKIDS

Barrett-Cravens Co.  
Bulldog Pallet Co.  
The Fairbanks Co.  
The Hamilton Caster & Mfg. Co.  
Hartman Metal Fabricators, Inc.  
Industrial Skid & Pallet Co.  
Ironbound Box & Lumber Co.  
Petley, Inc.  
Powell Pressed Steel Co.  
Geo. M. Prescott Co.  
Republic Steel Corp.  
Roll Rite Corp.  
Thomas Truck & Caster Co.  
The Union Metal Mfg. Co.  
Washington Aluminum Co., Inc.

### SLINGS—belt

R & J Dick Co.  
Downs Crane & Hoist Co.  
B. F. Goodrich  
Industrial Products Co.  
Hewitt-Robins, Inc.  
New York Belting & Packing Co.  
Raybestos-Manhattan, Inc.,  
Manhattan Rubber Div.  
Republic Rubber Div.,  
Lee Rubber & Tire Co.  
Thermoid Co.  
Ton-Tex Corp.

United States Rubber Co.,  
Mechanical Goods Div.  
Victor Balata & Textile Belting Co.

### SLINGS—canvas

R & J Dick Co.  
Downs Crane & Hoist Co.  
Ton-Tex Corp.  
Victor Balata Textile & Belting Co.

### SLINGS—chain

American Chain & Cable Co.  
Campbell Chain Co.  
Downs Crane & Hoist Co.  
Electric Steel Foundry Co.  
Iron Works, Inc.  
Philadelphia Chain Block & Mfg. Co.  
Republic Steel Corp.  
Universal Cranehoist &  
Monorail Co.

### SLINGS—rope

Pacific Wire Rope Co.

### SLINGS—wire rope

American Chain & Cable Co.  
Bethlehem Pacific Coast Steel Co.  
Broderick & Bascom Rope Co.  
The Caldwell Co., Inc.  
Colorado Fuel and Iron Corp.  
Downs Crane & Hoist Co.  
Iron Works, Inc.  
Lechen Wire Rope Div.  
H. K. Porter Co.  
Pacific Wire Rope Co.  
John A. Roebling's Sons Corp.  
Union Wire Rope Corp.  
Universal Cranehoist &  
Monorail Co.

### SLINGS—other

Brown Rubber Co. (rubber covered)  
The Caldwell Co., Inc.  
(nylon & dacron)  
Cambridge Wire Cloth Co.  
(woven wire)  
Downs Crane & Hoist Co.

### STACKERS—portable electric

All-State Engineering Co., Inc.  
American Pulley Co.  
Belt Corp.  
Boman Co.  
Colson Corp.  
Economy Engineering Co.  
Fetterman-Coffax Co.  
Flexveyor Mfg. Co.  
Grand Specialties Co.  
Hamilton Tool Co.  
Lee Engineering Co.  
Lewis-Shepard Products, Inc.  
The Oster Co.  
Raymond Corp.  
Revolator Co.  
Uhrden, Inc.  
West Bend Equipment Corp.

### STACKERS—portable hand

American Pulley Co.  
Boman Co.  
Colson Corp.  
Economy Engineering Co.  
Grand Specialties Co.  
Hamilton Tool Co.  
Lee Engineering Co.  
Lewis-Shepard Products, Inc.  
The Oster Co.  
Raymond Corp.  
Revolator Co.  
Uhrden, Inc.  
West Bend Equipment Corp.

### STITCHING AND STITCHING EQUIPMENT

Acme Steel Co.  
Diagraph-Bradley Industries, Inc.  
Dave Fischbein Co.  
Inland Wire Products Co.  
Sackner Products, Inc.

### STRAPPING AND STRAPPING EQUIPMENT

Acme Steel Co.  
Allegheny Steel Band Co.  
Brainard Steel Div. of  
Sharon Steel Corp.  
Gerrard, A. J., & Co.  
Gerrard Steel Strapping Div.,  
U. S. Steel Corp.  
Inland Wire Products Co.  
H. K. Porter  
J. E. Rhoads & Sons  
Signode Steel Strapping Co.  
Stanley Steel Strapping Div.,  
The Stanley Works

### TABLES—conveying

Alden Equipment Co.  
Alvey-Ferguson Co., West Coast  
Bayer, A. J., Co.  
Belt Corp.  
Conveyor Corp.  
Fetterman-Coffax Co.  
General Nailing Machine Co.  
Hurt Conveyor Co.  
Iron Works, Inc.  
Lamson Corp.  
Link-Belt Co.  
Masonite Corp.  
Mathews Conveyor Co., West Coast  
M-H Standard Corp.  
Paramount Mfg. Co.  
Rack Engineering Co. of Calif., Inc.  
Speedways Conveyors, Inc.

### TABLES—elevating

Alden Equipment Co.  
Belt Corp.  
Colson Corp.  
Colson Equipment & Supply Co.  
Lamson Corp.  
Link-Belt Co.  
Masonite Corp.  
Rack Engineering Co. of Calif., Inc.  
Raymond Corp.  
Revolator Co.  
Rotary Lift Co.  
Southwest Machine Co.  
West Bend Equipment Corp.

### TABLES—portable

Auto Sheet Metal Works  
Colson Corp.  
Colson Equipment & Supply Co.  
Iron Works, Inc.  
Lamson Corp.  
Multiframe of California, Inc.  
Paramount Mfg. Co.  
Pollard Bros. Mfg. Co.  
Rack Engineering Co. of  
Calif., Inc. (hydraulic sheet feed)  
Raymond Corp.  
Revolator Co.  
Southwest Machine Co.  
Worley & Co.

### TABLES—other

American Machine & Foundry Co.  
(self-leveling work positioners)  
Iron Works, Inc. (steel)  
Jarke Manufacturing Co.  
(punch press feeding, portable)  
Multiframe of California, Inc.  
Paramount Mfg. Co. (grading)  
Pollard Bros. Mfg. Co. (work)  
Pressteel Co. (shipping room)  
Rack Engineering Co. of  
Calif., Inc. (die)  
Raymond Corp. (sheet feeding)

### TAGS AND LABELS

Eastman Tag & Label Co.

### TAPE—marking

W. H. Brady Co.  
Ideal Stencil Machine Co.  
Mid-States Gummed Paper Co.

### TAPE—packaging

W. H. Brady Co.  
Crown Zellerbach Corp.  
Ideal Stencil Machine Co.  
Mid-States Gummed Paper Co.  
Nashua Package Sealing Div.,  
Nashua Corp. (gummed plain  
and printed-manual and auto-  
matic dispensers)  
Quaker Pioneer Rubber Div.,  
H. K. Porter Co.

### TIRES—industrial truck and trailer

Boman Co.  
Brown Rubber Co.  
Colson Equipment & Supply Co.  
Gates Rubber Co.  
Hamilton Caster & Mfg. Co.  
Holz Rubber Co.  
Laher Spring & Tire Corp.  
Lansing Co.  
Mitchell Industrial Tire Co., Inc.  
Monarch Rubber Co.  
Roll Rite Corp.  
Thomas Truck & Caster Co.  
United States Rubber Co.,  
Mechanical Goods Div.

### TONGS

Downs Crane & Hoist Co.  
Iron Works, Inc.  
Magline, Inc.

### TRACTORS—diesel

Allis-Chalmers Mfg. Co., Buda Div.  
Caterpillar Tractor Co.  
John Deere, Industrial Div.  
Hensel Green & Co.  
Oliver Corp.  
Rocky Mountain Steel  
Towmotor Corp.

### TRACTORS—electric

warehouse  
Automatic Transportation Co.  
Barrett-Cravens Co.  
Eiwell-Parker Electric Co.  
Kalamazoo Mfg. Co.  
Lift Trucks, Inc.  
Mercury Mfg. Co.  
Moto-Truc Co.  
Rocky Mountain Steel  
Yale & Towne Mfg. Co.

### TRACTORS—gasoline

warehouse  
Allis-Chalmers Mfg. Co., Buda Div.  
Automatic Transportation Co.  
John Deere, Industrial Div.  
"HH" Manufacturers  
Hensel Green & Co.  
Kalamazoo Mfg. Co.  
Mercury Mfg. Co.  
Oliver Corp.  
Rocky Mountain Steel  
Towmotor Corp.

### TRACTORS—monorail warehouse

American MonoRail Co.  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
Crane Hoist Engineering Corp.  
Ohio Tramrail Div.,  
The Forker Corp.  
Rocky Mountain Steel  
Schultz Materials Handling Corp.

### TRAILERS—factory and warehouse

Boman Co.  
Colson Corp.  
Cost Reduction Equipment Co.  
Electric Marketeer Mfg. Co.  
Electric Wheel Co.  
Equipment Manufacturing, Inc.  
Fairbanks Co.  
Gar-Bro Mfg. Co.  
Handling Equipment Corp.  
Hartman Metal Fabricators, Inc.  
"HH" Manufacturers  
Jakes Foundry Co.  
Magline, Inc.  
Magnesium Co. of America  
Mercury Mfg. Co.  
Nutting Truck & Caster Co.  
Geo. M. Prescott Co.  
Rocky Mountain Steel  
Roll Rite Corp.  
Saginaw Products Corp.  
Thomas Truck & Caster Co.  
Towner Manufacturing Co.  
West Bend Equipment Corp.

### TRAILERS—motor truck and tractor

Brown Trailers, Inc.  
Colson Corp.  
F.A.B. Mfg. Co.  
Fruehauf Trailer Co.  
Gar-Bro Mfg. Co.  
Gar Wood Industries, Inc.  
"HH" Manufacturers  
C. E. Howard Corp.  
Magline, Inc.  
Rocky Mountain Steel  
Towner Mfg. Co.  
Yuba Mfg. Co.

### TROLLEYS

Alvey-Ferguson Co., West Coast  
American Crane & Hoist Corp.  
Bond Foundry & Machine Co.  
Chester Hoist Div.,  
National Screw & Mfg. Co.  
Chisholm-Moore Hoist Div.,  
Columbus-McKinnon Chain Corp.  
Cleveland Tramrail Div., Cleveland  
Crane & Engineering Co.  
Coffing Hoist Div., Duff-Norton Co.  
Conco Engineering Works  
Crane Hoist Engineering Corp.  
Craneveyor Corp.  
Ederer Engineering Co.  
Electro Lift, Inc.  
Keller Tool Div.,  
Gardner-Denver Co.  
Manning, Maxwell & Moore, Inc.,  
Shaw-Box Crane & Hoist Div.  
Mathews Conveyor Co., West Coast



## TRUCKS, bag — TRUCKS, lift, hand

Moffett Engineering Inc.  
Ohio Hoist & Mfg. Co., Inc.  
Ohio Tramrail Div.,  
The Forker Corp.  
Philadelphia Chain Block & Mfg. Co.  
Reading Crane & Hoist Corp.  
(eyebeam)  
Richards-Wilcox Mfg. Co.  
Saginaw Products Corp.  
Schultz Materials Handling Corp.  
Spanmaster Crane Div.,  
Jervis B. Webb Co. of Calif.  
Universal Cranehoist & Monorail Co.  
Wright Hoist Div. of American  
Chain & Cable Co., Inc.  
Yale & Towne Mfg. Co.

### TRUCKS—bag, barrel, drum

Allis-Chalmers Mfg. Co., Buda Div.  
American Pulley Co.  
Boman Co.  
Brooks & Perkins, Inc.  
Colson Corp.  
Colson Equipment & Supply Co.  
Dico Co.  
Economy Engineering Co.  
Elwell-Parker Electric Co.  
The Fairbanks Co.  
Fetterman-Colfax Co.  
Hamilton Caster & Mfg. Co.  
Howe Scale Co.  
Hyster Co.  
Kalamazoo Mfg. Co.  
Lewis-Shepard Products, Inc.  
Magline, Inc.  
Nalpak Corp.  
Nutting Truck & Caster Co.  
Pollard Bros. Mfg. Co.  
Rack Engineering Co. of  
Calif., Inc.  
Roll Rite Corp.  
Thomas Truck & Caster Co.  
Towmotor Corp.  
Uhrden, Inc.  
U. S. Products, Inc.  
Wellington Machine Corp.  
West Bend Equipment Corp.  
Yale & Towne Mfg. Co.

### TRUCKS—box type

Allis-Chalmers Mfg. Co., Buda Div.  
Auto Sheet Metal Works  
Blackman Plastics  
Brooks & Perkins, Inc.  
Colson Corp.  
Colson Equipment & Supply Co.  
Fetterman-Colfax Co.  
Hamilton Caster & Mfg. Co.  
Handling Equipment Corp.  
Hyster Co.  
Ironbound Box & Lumber Co.  
Jakes Foundry Co.  
G. B. Lewis Co. (Polyester)  
Lewis-Shepard Products, Inc.  
Magline, Inc.  
Magnesium Co. of America  
Nutting Truck & Caster Co.  
Pollard Bros. Mfg. Co.  
Rack Engineering Co. of  
Calif., Inc.  
Roll-Away Truck Mfg. Co., Inc.  
Roll Rite Corp.  
Towmotor Corp.  
Uhrden, Inc.  
Wellington Machine Co.  
West Bend Equipment Corp.

### TRUCKS—die handling

Allis-Chalmers Mfg. Co., Buda Div.  
American Pulley Co.  
Automatic Transportation Co.  
Colson Corp.  
Colson Equipment & Supply Co.  
Economy Engineering Co.  
Elwell-Parker Electric Co.  
Hamilton Tool Co.  
Hyster Co.  
Jakes Foundry Co.  
Lewis-Shepard Products, Inc.  
Moto-Truc Co.  
Nutting Truck & Caster Co.  
Pollard Bros. Mfg. Co.  
Raymond Corp.  
Towmotor Corp.  
Wellington Machine Co.  
West Bend Equipment Corp.  
Yale & Towne Mfg. Co.

### TRUCKS—dolly

Alden Equipment Co.  
American Pulley Co.  
Arnold Corp.  
Auto Sheet Metal Works  
Bond Foundry & Machine Co.  
Brooks & Perkins, Inc.  
Colson Corp.  
Colson Equipment & Supply Co.  
Engineering Products Co.  
The Fairbanks Co.  
Gar-Bro Mfg. Co.

Hamilton Caster & Mfg. Co.  
Hamilton Tool Co.  
Handling Equipment Corp.  
"HH" Manufacturers  
Howe Scale Co.  
Ironbound Box & Lumber Co.  
Jakes Foundry Co.  
Jarvis & Jarvis, Inc.  
Magline, Inc.  
Mathews Conveyor Co., West Coast  
Mercury Mfg. Co.  
Milwaukee Truck Co.  
Nalpak Corp.  
National Vulcanized Fibre Co.  
Nutting Truck & Caster Co.  
Rack Engineering Co. of  
Calif., Inc.  
Roll Rite Corp.  
Thomas Truck & Caster Co.  
Uhrden, Inc.  
Wellington Machine Co.  
West Bend Equipment Corp.

### TRUCKS—elevating or lifting

American Pulley Co.  
Automatic Transportation Co.  
Barrett-Cravens Co.  
Boman Co.  
Colson Equipment & Supply Co.  
Economy Engineering Co.  
Elwell-Parker Electric Co.  
Fairbanks Co.  
Grand Specialties Co.  
Hamilton Tool Co.  
Hyster Co.  
Joint Saw Co.  
Kwik-Mix Div., Koehring Co.  
Lewis-Shepard Products, Inc.  
Mercury Mfg. Co.  
Moto-Truc Co.  
National Vulcanized Fibre Co.  
The Oster Co.  
Raymond Corp.  
Revolator Co.  
Towmotor Corp.  
West Bend Equipment Corp.  
Yale & Towne Mfg. Co.

### TRUCKS—factory and warehouse

Alden Equipment Co.  
Allis-Chalmers Mfg. Co., Buda Div.  
American Pulley Co.  
Automatic Transportation Co.  
Barrett-Cravens Co.  
Brooks & Perkins, Inc.  
Colson Corp.  
Colson Equipment & Supply Co.  
Cushman Motor Works, Inc.  
Elwell-Parker Electric Co.  
Fairbanks Co.  
Gar-Bro Mfg. Co.  
Hamilton Caster & Mfg. Co.  
Handling Equipment Corp.  
Hartman Metal Fabricators, Inc.  
"HH" Manufacturers  
Hyster Co.  
Industrial Skid & Pallet Co.  
Ironbound Box & Lumber Co.  
Jakes Foundry Co.  
Lewis-Shepard Products, Inc.  
Magline, Inc.  
Magnesium Co. of America  
Mercury Mfg. Co.  
Milwaukee Truck Co.  
Multiframe of California, Inc.  
Nalpak Corp.  
Nutting Truck & Caster Co.  
Oliver Corp.  
The Oster Mfg. Co.  
Geo. M. Prescott Co.  
Rapids Standard Co.  
Revolator Co.  
Roll-Away Truck Mfg. Co., Inc.  
Roll Rite Corp.  
Saginaw Products Corp.  
Technibilt Corp.  
Thomas Truck & Caster Co.  
Towmotor Corp.  
Uhrden, Inc.  
U. S. Products, Inc.  
Wellington Machine Co.  
West Bend Equipment Corp.  
Yale & Towne Mfg. Co.

### TRUCKS—fork, diesel

Allis-Chalmers Mfg. Co., Buda Div.  
Clark Equipment Co.  
Hyster Co.  
Oliver Corp.  
The Oster Mfg. Co.  
Silent Hoist & Crane Co.  
Towmotor Corp.  
Yale & Towne Mfg. Co.

### TRUCKS—fork, electric

Automatic Transportation Co.  
Baker-Raulang Co.  
Barrett-Cravens Co.  
Boman Co.

Clark Equipment Co.  
Elwell-Parker Electric Co.  
Engineering Products Co.  
Grand Specialties Co.  
Kwik-Mix Div., Koehring Co.  
Lee Engineering Co.  
Lewis-Shepard Products, Inc.  
Lift Trucks, Inc.  
Mercury Mfg. Co.  
Moto-Truc Co.  
The Oster Mfg. Co.  
Raymond Corp.  
Revolator Co.  
Yale & Towne Mfg. Co.

### TRUCKS—fork, gasoline

Allis-Chalmers Mfg. Co., Buda Div.  
Automatic Transportation Co.  
Baker-Raulang Co.  
Boman Co.  
Champ Corp.  
Clark Equipment Co.  
Colson Corp.  
"HH" Manufacturers  
Hyster Co.  
Koehring Co.  
Kwik-Mix Div., Koehring Co.  
Lamson Mobilift Corp.  
Mercury Mfg. Co.  
Silent Hoist & Crane Co.  
Transitier Truck Co.  
Truck-Man Div.,  
The Knickerbocker Co.  
Towmotor Corp.  
West Coast Machinery, Inc.  
Yale & Towne Mfg. Co.

### TRUCKS—hand

American Pulley Co.  
Automatic Transportation Co.  
Barrett-Cravens Co.  
Boman Co.  
Bond Foundry & Machine Co.  
Brooks & Perkins, Inc.  
Colson Corp.  
Colson Equipment & Supply Co.  
Dico Co.  
Engineering Products Co.  
Equipto Div., Aurora Equipment Co.  
Fairbanks Co.  
Fetterman-Colfax Co.  
Gar-Bro Mfg. Co.  
Grand Specialties Co.  
Hamilton Caster & Mfg. Co.  
Handling Equipment Corp.  
Howe Scale Co.  
Jakes Foundry Co.  
Jarvis & Jarvis, Inc.  
Joint Saw Co.  
Lee Engineering Co.  
Lewis-Shepard Products, Inc.  
Magline, Inc.  
Magnesium Co. of America  
Milwaukee Truck Co.  
Nutting Truck & Caster Co.  
Pollard Bros. Mfg. Co.  
Rack Engineering Co. of Calif., Inc.  
Rapids Standard Co.  
Revolator Co.  
Roll-Away Truck Mfg. Co., Inc.  
Roll Rite Corp.  
Technibilt Corp.  
Thomas Truck & Caster Co.  
Uhrden, Inc.  
U. S. Products, Inc.  
Unit Mfg. Co.  
Wellington Machine Co.  
West Bend Equipment Corp.  
Yale & Towne Mfg. Co.

### TRUCKS—hand, motorized

Automatic Transportation Co.  
Boman Co.  
Clark Equipment Co.  
Colson Corp.  
Gar-Bro Mfg. Co.  
Koehring Co.  
Lee Engineering Co.  
Lewis-Shepard Products, Inc.  
Lift Trucks, Inc.  
Moto-Truc Co.  
Raymond Corp.  
Revolator Co.  
Rocky Mountain Steel  
Towmotor Corp.  
Yale & Towne Mfg. Co.

### TRUCKS—industrial (elec- tric, gas-electric, gasoline)

Autoette Div., Wayne Mfg. Co.  
Automatic Transportation Co.  
Baker-Raulang Co.  
Barrett-Cravens Co.  
Boman Co.  
Clark Equipment Co.

Colson Corp.  
Cushman Motor Works, Inc.  
Electric Marketeer Mfg. Co.  
Elwell-Parker Electric Co.  
Engineering Products Co.  
Gar-Bro Mfg. Co.  
Grand Specialties Co.  
Hensel Green & Co.  
Frank G. Hough Co.  
Hyster Co.  
Kalamazoo Mfg. Co.  
Koehring Co.  
Kwik-Mix Div., Koehring Co.  
Laher Spring & Tire Corp.  
Lewis-Shepard Products, Inc.  
Lift Trucks, Inc.  
Market Forge Co.  
Mercury Mfg. Co.  
Moto-Truc Co.  
Prime-Mover Co.  
Revolator Co.  
Silent Hoist & Crane Co.  
Taylor Mfg. Co.  
West Coast Machinery, Inc.  
Yale & Towne Mfg. Co.

### TRUCKS—lift, gasoline

Allis-Chalmers Mfg. Co., Buda Div.  
Automatic Transportation Co.  
Boman Co.  
Elwell-Parker Electric Co.  
"HH" Manufacturers  
Hyster Co.  
Koehring Co.  
Kwik-Mix Co.  
Mercury Mfg. Co.  
Silent Hoist & Crane Co.  
Towmotor Corp.  
Transitier Truck Co.  
Yale & Towne Mfg. Co.

### TRUCKS—lift, hand

American Pulley Co.  
Arnold Corp.  
Automatic Transportation Co.  
Barrett-Cravens Co.  
Boman Co.  
Colson Corp.  
Colson Equipment & Supply Co.  
Engineering Products Co.  
Grand Specialties Co.  
Hamilton Caster & Mfg. Co.  
Hamilton Tool Co.  
Joint Saw Co.  
Lee Engineering Co.  
Lewis-Shepard Products, Inc.  
Lift Trucks, Inc.  
The Oster Mfg. Co.  
Rack Engineering Co. of Calif., Inc.  
Raymond Corp.  
Revolator Co.  
Skarnes Engineering & Supply, Inc.  
Thern Machine Co.  
Uhrden, Inc.  
Wellington Machine Co.  
West Bend Equipment Corp.  
Yale & Towne Mfg. Co.

### TRUCKS—lift, hand-electric

American Pulley Co.  
Automatic Transportation Co.  
Barrett-Cravens Co.  
Colson Corp.  
Colson Equipment & Supply Co.  
Grand Specialties Co.  
Hamilton Tool Co.  
Lee Engineering Co.  
Lewis-Shepard Products, Inc.  
Lift Trucks, Inc.  
Moto-Truc Co.  
The Oster Mfg. Co.  
Raymond Corp.  
Revolator Co.  
Towmotor Corp.  
Uhrden, Inc.

### TRUCKS—lift, hand- mechanical or jack-type

American Pulley Co.  
Automatic Transportation Co.  
Barrett-Cravens Co.  
Boman Co.  
Colson Corp.  
Colson Equipment & Supply Co.  
Grand Specialties Co.  
Hamilton Tool Co.  
Jakes Foundry Co.  
Lewis-Shepard Products, Inc.  
Lift Trucks, Inc.  
Nalpak Corp.  
Rack Engineering Co. of Calif., Inc.  
Raymond Corp.  
Revolator Co.  
Wellington Machine Co.  
West Bend Equipment Co.  
Yale & Towne Mfg. Co.



# TRUCKS, lift hydraulic — WIRE ROPE

## TRUCKS—lift, hydraulic

American Pulley Co.  
Automatic Transportation Co.  
Barrett-Cravens Co.  
Boman Co.  
Colson Corp.  
Colson Equipment & Supply Co.  
Elwell-Parker Electric Co.  
Engineering Products Co.  
Gar Wood Industries Co.  
Gerlinger Carrier Co.  
Grand Specialties Co.  
Hyster Co.  
Ironbound Box & Lumber Co.  
Koehring Co.  
Kwik-Mix Div., Koehring Co.  
Lee Engineering Co.  
Lewis-Shepard Products, Inc.  
Lift Trucks, Inc.  
The Oster Mfg. Co.  
Rack Engineering Co. of Calif., Inc.  
Raymond Corp.  
Revolator Co.  
Sherman Products, Inc.  
Transitler Truck Co.  
Uhrden, Inc.  
West Bend Equipment Corp.  
Yale & Towne Mfg. Co.  
L. A. Young Spring & Wire Corp.,  
Ottawa Steel Div.

## TRUCKS—lift, power driven

Allis-Chalmers Mfg. Co., Buda Div.  
Automatic Transportation Co.  
Barrett-Cravens Co.  
Boman Co.  
Colson Corp.  
Elwell-Parker Electric Co.  
Gerlinger Carrier Co.  
Grand Specialties Co.  
Hyster Co.  
Koehring Co.  
Lewis-Shepard Products, Inc.  
Lift Trucks, Inc.  
Moto-Truc Co.  
Raymond Corp.  
Revolator Co.  
Transitler Truck Co.  
Uhrden, Inc.  
Yale & Towne Mfg. Co.

## TRUCKS—pallet

Allis-Chalmers Mfg. Co., Buda Div.  
American Pulley Co.  
Automatic Transportation Co.  
Barrett-Cravens Co.  
Boman Co.  
Brooks & Perkins, Inc.  
Colson Corp.  
Colson Equipment & Supply Co.  
Engineering Products Co.  
Hamilton Tool Co.  
Handling Equipment Corp.  
Hyster Co.  
Koehring Co.  
Lewis-Shepard Products, Inc.  
Lift Trucks, Inc.  
Moto-Truc Co.  
Rack Engineering Co. of Calif., Inc.  
Raymond Corp.  
Revolator Co.  
Roll Rite Corp.  
Towner Mfg. Co.  
Transitler Truck Co.  
Truck-Man Div.,  
The Knickerbocker Co.  
Yale & Towne Mfg. Co.

## TRUCKS—paper roll

Allis-Chalmers Mfg. Co., Buda Div.  
American Pulley Co.  
Automatic Transportation Co.  
Auto Sheet Metal Works  
Baker-Raulang Co.  
Boman Co.  
Bond Foundry & Machine Co.  
Colson Corp.  
Colson Equipment & Supply Co.  
Economy Engineering Co.  
Elwell-Parker Electric Co.  
Fairbanks Co.  
Hamilton Caster & Mfg. Co.  
Hyster Co.  
Ironbound Box & Lumber Co.  
Koehring Co.  
Lewis-Shepard Products, Inc.  
Mercury Mfg. Co.  
Nutting Truck & Caster Co.  
Transitler Truck Co.  
Wellington Machine Co.  
Yale & Towne Mfg. Co.

## TRUCKS—sheet handling

Allis-Chalmers Mfg. Co., Buda Div.  
American Pulley Co.  
Automatic Transportation Co.  
Auto Sheet Metal Works  
Colson Corp.  
Colson Equipment & Supply Co.  
Elwell-Parker Electric Co.  
Hamilton Caster & Mfg. Co.  
Hamilton Tool Co.  
Handling Equipment Corp.  
Hyster Co.  
Jakes Foundry Co.

Koehring Co.  
Lewis-Shepard Products, Inc.  
Nutting Truck & Caster Co.  
The Oster Mfg. Co.  
Rack Engineering Co. of Calif., Inc.  
Rol-Away Truck Mfg. Co., Inc.  
Towmotor Corp.  
Wellington Machine Co.  
West Bend Equipment Corp.  
Yale & Towne Mfg. Co.

## TRUCKS—skid handling

Allis-Chalmers Mfg. Co., Buda Div.  
American Pulley Co.  
Automatic Transportation Co.  
Auto Sheet Metal Works  
Barrett-Cravens Co.  
Boman Co.  
Colson Corp.  
Elwell-Parker Electric Co.  
Hamilton Tool Co.  
Handling Equipment Corp.  
Hyster Co.  
Jakes Foundry Co.  
Koehring Co.  
Lee Engineering Co.  
Lewis-Shepard Products, Inc.  
Lift Trucks, Inc.  
Mercury Mfg. Co.  
Moto-Truc Co.  
Nutting Truck & Caster Co.  
The Oster Mfg. Co.  
Raymond Corp.  
Revolator Co.  
Towmotor Corp.  
Transitler Truck Co.  
Truck-Man Div.,  
The Knickerbocker Co.  
West Bend Equipment Corp.  
Yale & Towne Mfg. Co.

## TRUCKS—straddle

American Pulley Co.  
Automatic Transportation Co.  
Barrett-Cravens Co.  
Clark Equipment Co.  
Clark Equipment Co.,  
Ross Carrier Div.  
Colson Corp.  
Gerlinger Carrier Co.  
Hyster Co.  
Lee Engineering Co.  
Lewis-Shepard Products, Inc.  
Lift Trucks, Inc.  
Moto-Truc Co.  
The Oster Mfg. Co.  
Raymond Corp.  
Revolator Co.  
Yale & Towne Mfg. Co.

## TRUCKS—tiering, electric

American Pulley Co.  
Automatic Transportation Co.  
Barrett-Cravens Co.  
Colson Corp.  
Colson Equipment & Supply Co.  
Economy Engineering Co.  
Elwell-Parker Electric Co.  
Lee Engineering Co.  
Lewis-Shepard Products, Inc.  
Lift Trucks, Inc.  
Mercury Mfg. Co.  
Moto-Truc Co.  
The Oster Mfg. Co.  
Raymond Corp.  
Revolator Co.  
Yale & Towne Mfg. Co.

## TRUCKS—other

Automatic Transportation Co.  
(tractor)  
Brown Trailers, Inc.  
(aluminum truck bodies)  
Brooks & Perkins, Inc. (platform)  
Dempster Brothers, Inc. (truck unit  
and container system)  
East Side Mfg. Inc. (electric)  
Elwell-Parker Electric Co.  
F. A. B. Mfg. Co. (motor)  
Hamilton Caster & Mfg. Co.  
(appliance)  
"HH" Manufacturers  
(flatbed, self-propelled)  
C. E. Howard Corp.  
(stainless trucks, semi-trailers)  
Howe Scale Co. (dragline)  
Iron Works Inc.  
(lift truck attachments)  
Kugler Development Corp.  
(drum handling & height  
extension lift truck attachments)  
Lee Engineering Co. (floor locks)  
Lewis-Shepard Products, Inc.  
Little Giant Products, Inc.  
(lift truck attachments)  
Marion Metal Products Co.  
Mercury Mfg. Co. (platform)  
Nutting Truck & Caster Co.  
Pacific Coast Engineering Co.  
(dumpers)  
Geo. M. Prescott Co. (dragline)  
Ready-Power Co. (power units for  
electrical industrial trucks)  
Rol-Away Truck Mfg. Co., Inc.  
(“stock picker”, utility,  
maintenance, ladder)  
Swing Shift Mfg. Co.  
(hydraulic fork control)

Taylor Mfg. Co. (personnel)  
Towmotor Corp.  
Vac-U-Lift Co. (vacuum grab  
attachments for lift trucks)  
Waukesha Motor Co. (engines,  
gas, gasoline, diesel)  
Wellington Machine Co. (special)  
Western Gear Corp.  
(motorized hand micro lever)  
Yale & Towne Mfg. Co.  
(lift, L.P. Gas)

## WHEELBARROWS—

industrial

Dico Co.  
Gar-Bro Mfg. Co.  
Jackson Mfg. Co.  
Koehring Co.  
Kwik-Mix Div., Koehring Co.  
Prime Mover Co. (powered)

## WHEELS—conveyor

Albion Industries  
Boman Co.  
Brown Rubber Co.  
Colson Corp.  
Colson Equipment & Supply Co.  
Conveyor Co.  
Harry J. Ferguson Co.  
Fetterman-Colfax Co.  
Gar-Bro Mfg. Co.  
Geneva Metal Wheel Co.  
Gleason Corp.  
Holz Rubber Co., Inc.  
Hurt Conveyor Co.  
Mathews Conveyor Co., West Coast  
R & K Industrial Products Co., Inc.  
Rack Engineering Co. of Calif., Inc.  
Roll Rite Corp.  
Saginaw Products Corp.  
Speedways Conveyors, Inc.  
Stephens-Adamson Mfg. Co.

## WHEELS—general

industrial

Aerol Co.  
Albion Industries  
American Pulley Co.  
Bassick Co.  
Brown Rubber Co.  
Colson Corp.  
Colson Equipment & Supply Co.  
Darnell Corp.  
Dico Co.  
Divine Brothers Co.  
Electric Wheel Co.  
Fairbanks Co.  
Faultless Caster Corp.  
Gar-Bro Mfg. Co.  
Geneva Metal Wheel Co.  
Gleason Corp.  
Hamilton Caster & Mfg. Co.  
Lewis-Shepard Products, Inc.  
Nalpak Corp.  
R & K Industrial Products Co.  
Roll Rite Corp.  
Saginaw Products Corp.  
Thistle Roller & Mfg. Co.  
Thomas Truck & Caster Co.  
Wellington Machine Co.

## WHEELS—hand truck

Aerol Co.  
Albion Industries  
American Pulley Co.  
Bassick Co.  
Boman Co.  
Bond Foundry & Machine Co.  
Brown Rubber Co.  
Colson Corp.  
Colson Equipment & Supply Co.  
Darnell Corp.  
Divine Brothers Co.  
Electric Wheel Co.  
Fairbanks Co.  
Faultless Caster Corp.  
Gar-Bro Mfg. Co.  
Geneva Metal Wheel Co.  
Gleason Corp.  
Hamilton Caster & Mfg. Co.  
Holz Rubber Co., Inc.  
Howe Scale Co.  
Lansing Co.  
Lewis-Shepard Products, Inc.  
Magline, Inc.  
Mercury Mfg. Co.  
Nalpak Corp.  
Nutting Truck & Caster Co.  
R & K Industrial Products Co.  
Roll Rite Corp.  
Saginaw Products Corp.  
Technibilt Corp.  
Thomas Truck & Caster Co.  
Wellington Machine Co.

## WHEELS—rubber tired

Aerol Co.  
Albion Industries  
American Pulley Co.  
Bassick Co.  
Boman Co.  
Bond Foundry & Machine Co.  
Bronco Products Co.  
Brown Rubber Co.  
Colson Corp.  
Colson Equipment & Supply Co.

Darnell Corp.  
Dico Co.  
Divine Brothers Co.  
Electric Wheel Co.  
Fairbanks Co.  
Faultless Caster Corp.  
Gar-Bro Mfg. Co.  
Geneva Metal Wheel Co.  
Gleason Corp.  
Hamilton Caster & Mfg. Co.  
Holz Rubber Co., Inc.  
Howe Scale Co.  
Jackson Mfg. Co.  
Jarvis & Jarvis Co.  
Lewis-Shepard Products, Inc.  
Magline, Inc.  
Nalpak Corp.  
Nutting Truck & Caster Co.  
R & K Industrial Products Co.  
Rack Engineering Co. of Calif., Inc.  
Roll Rite Corp.  
Saginaw Products Corp.  
Technibilt Corp.  
Thomas Truck & Caster Co.  
Wellington Machine Co.

## WHEELS—tractor

Albion Industries  
Boman Co.  
Brown Rubber Co.  
Colson Corp.  
Electric Wheel Co.  
Gar-Bro Mfg. Co.  
Geneva Metal Wheel Co.  
Lewis-Shepard Products, Inc.  
Mercury Mfg. Co.  
Nalpak Corp.  
Saginaw Products Corp.

## WHEELS—trailer

Albion Industries  
Boman Co.  
Brown Rubber Co.  
Colson Corp.  
Colson Equipment & Supply Co.  
Darnell Corp.  
Divine Brothers Co.  
Electric Wheel Co.  
Fairbanks Co.  
Faultless Caster Corp.  
Gar-Bro Mfg. Co.  
Geneva Metal Wheel Co.  
Hamilton Caster & Mfg. Co.  
Lewis-Shepard Products, Inc.  
Mercury Mfg. Co.  
Nalpak Corp.  
Nutting Truck & Caster Co.  
R & K Industrial Products Co.  
Roll Rite Corp.  
Saginaw Products Corp.  
Thomas Truck & Caster Co.

## WINCHES AND

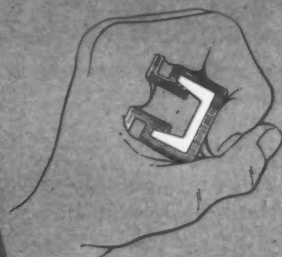
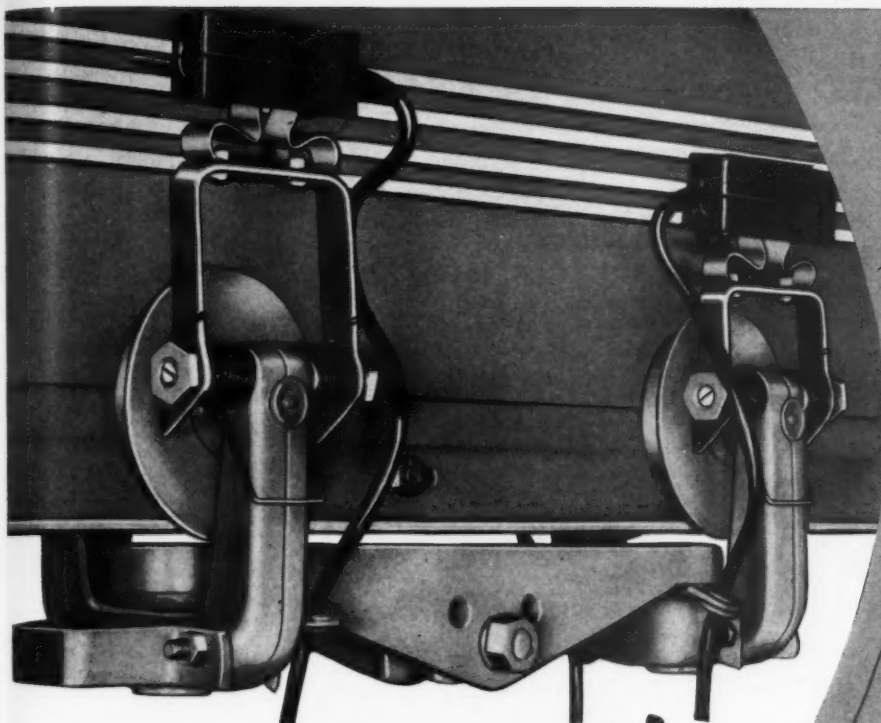
## WINDLASSES

American Engineering Co.  
American Hoist & Derrick Co.  
Austin-Western Co. (winches only)  
J. D. Christian Engineers  
Clyde Iron Works  
Crane Hoist Engineering Corp.  
Engineering Products Co.  
Gar Wood Industries, Inc.  
Gripshoist, Inc.  
Hewitt-Robins, Inc.  
Hyster Co.  
Little Giant Products, Inc.  
Moffett Engineering, Inc.  
Ohio Hoist & Mfg. Co., Inc.  
Pacific Car & Foundry Co.  
Robbins & Myers, Inc.  
Hoist & Crane Div.  
Sasgen Derrick Co.  
Sauerman Bros. Inc.  
Shepard Hoist Crane & Hoist Corp.  
Silent Niles & Crane Co.  
Stephens-Adamson Mfg. Co.  
Thorn Machine Co.  
Tulsa Winch Div., Vickers, Inc.  
Universal Cranehoist & Monorail Co.  
Western Gear Corp.  
Wright Hoist Div. of American  
Chain & Cable Co., Inc.  
Yale & Towne Mfg. Co.  
Yuba Mfg. Co.

## WIRE ROPE

American Chain & Cable Co.  
American Hoist & Derrick Co.  
Bethlehem Pacific Coast Steel Corp.  
Broderick & Bascom Rope Co.  
Colorado Fuel and Iron Corp.  
Columbia-Geneva Steel Div.,  
United States Steel Corp.  
E. H. Edwards Co.  
Electric Steel Foundry Co.  
Leschen Wire Rope Div.,  
H. K. Porter Co.  
Pacific Wire Rope Co.  
John A. Roebling's Sons Corp.  
Sauerman Bros. Inc. (fittings)  
Union Wire Rope Corp.





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## AMERICAN MONORAIL KANT SHOCK

### SHIELDED ELECTRIFICATION For Monorail Track and Crane Systems

By covering its standard bus bar electrification with a specially designed polyvinyl chloride extrusion, American MonoRail now furnishes completely safe electrified systems.

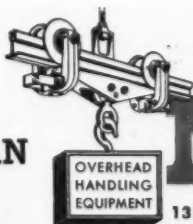
This KANT-SHOCK shielding absolutely prevents accidental contact with live bus bars. It is impossible for an adult's finger to enter the shield.

A new type sliding shoe collector provides a floating contact throughout a monorail system regardless of any misalignment due to bent bars or at switch and inter-lock connections.

KANT-SHOCK Electrification positively eliminates all the hazards of open bar conductors—prevents costly accidents—protects employees—reduces insurance rates.

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F. T. Crowe Co.  
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San Francisco 3, Calif.  
Grover Engineers  
44 McLea Court

Portland 7, Oregon  
McMahon Bros., Inc.  
337 Pittcock Block

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# HELPFUL LITERATURE

for the West's plant  
operating executives

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## 224-page volume of shop equipment items

Divided into 14 main sections, one for each specific type of shop equipment, this bound volume contains 224 pages on machinery and tools. Plus the convenient tabbed contents guide, it has a five-page alphabetical index. Section headings include benders and bulldozers, brakes and presses, portable electric tools, material handling hoists and accessories, punches and shears, dies, saws, bending rolls and miscellaneous sheet metal machinery. There are illustrations, descriptive copy and specifications for the numerous products listed. In addition to many new designs and specifications there are several new lines of equipment such as benchmaster punch presses and coil cradles; sheet and coil stock lifters, grinders; shop lifters and elevating tables, a steelmobile for handling metal strip and bar stock; tube and pipe cutoff machines and benders; drill presses and grinders; wire rope, chains, and accessories. *Joseph T. Ryerson & Son, Inc.*

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## Handy pocket catalog on Nutting floor trucks

Of convenient reference size, this 28-page booklet 57-S covers a variety of floor truck items with complete specifications on most popular items and many "in use" illustrations. It describes trailers, drag-line trucks, dollies, jacks and skids, wagon trucks, barrel handling equipment, casters, special duty trucks, plus 27 different models of two-wheel trucks and four-wheel platform trucks. *Nutting Truck & Caster Co.*

... for your copy, circle No. 152

## Tractor for use with hand, electric hoists

This comprehensive bulletin with illustrations, charts and descriptive paragraphs tells about a new Rail King tractor for use with monorail hand and electric hoists up to three-ton capacity. It describes all features of the electric-powered unit, complete with dimensions, travel speeds and performance curves. *Yale & Towne Mfg. Co.*

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## How you can repair and preserve roofs

How to prolong roof life for many years, how to restore 90% of leaky roofs and how to rejuvenate "dead" roofs, are some of the cost-saving ideas told in the roof maintenance manual, "Saving Old Roofs." Outlining the Tropical roof maintenance system, it discusses also the avoidance of high outside labor costs, proper patching of holes and breaks, flashings repair, and how and where to find concealed leaks and potential trouble-making factors such as shrinkage, rust and rot. Every type of industrial and commercial roof is covered: flat, sloping, felt, paper and roll roofing; built-up, composition, roofs of tar and gravel or slag; roofs of concrete, tin, corrugated and other metals. *Tropical Paint Co.*

... for your copy, circle No. 154

## 16-page data-book on new speed reducer line

Specification data, charts, labeled sketches and other illustrations cover a new line of double and triple reduction speed reducers that have ratings up to 50 hp. and efficiency ranges, from 97% or better. Ten construction advantages are pointed out for the reducers, which bear the trade name "Strait Line" and are immediately available in all models. *Western Gear Corp.*

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## 48-page catalog on steel tube fittings

Complete engineering data on two series of hydraulic flareless tube fittings and the Flare-Twin S.A.E. 37 deg. flare (J.I.C.) hydraulic tube fittings are incorporated in this 48-page catalog. Plus detailed engineering specifications, the book devotes a section to assembly instructions, materials, finishes and operating pressures. *The Weatherhead Co.*

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## Answers to your sound control problems

Advantages of sidewall panels made of long strand wood fibers impregnated with hydraulic binder, and compressed to required thicknesses, are pointed out in this eight-page catalog. How these panels effectively reduce industrial noise is brought out with detail drawings, descriptive paragraphs and application photos. Structural, insulation, acoustical and fire-resistance features are given. *Tectum Corp.*

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## Over 50 products in material handling manual

Over 50 material handling equipment products in practically every category are shown. There are sections with photos, descriptions and suggested applications on each of the following equipment types: fork lift trucks and attachments; cranes and platform trucks; lift truck and elevators; pallet racks; pressed steel pallets, skids and boxes; overhead, wheel, roller and belt conveyors; tractors; trucks; dockboards and ramps; hoists; grabs, and trailers. *Ira G. Perin Co.*

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## IRA G. PERIN CO.

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United Ready Mixed Concrete Co., Inc., of Southgate, Calif., steps up payload capacity to 26 tons with their new White 9000TD, powered by a JT-6B Cummins Diesel Engine and equipped as a 3-axle dump truck and transfer trailer combination.

You asked for it and White built it, just the way you wanted. Every inch...every pound is engineered for economy and maximum payload in the White 9000. Strong, lightweight materials, ideal weight distribution, high-mileage power, low maintenance costs—add them all up and you get substantial payload profits, lower cost per mile and longer equipment life.

From the first time you put the new White 9000 on the job, you'll agree—White has another winner, and so do you! See your White Representative today!



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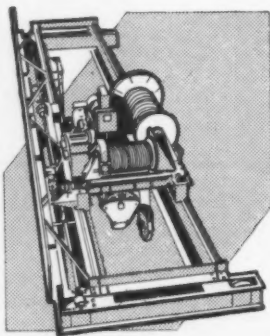
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161



## AMERICAN CRANES & HOISTS

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**ECONOMY  
and  
PERFORMANCE**



**HIGH SPEED  
MODELS TO 10 TONS**

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LOrain 7-0584

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### 26-page guide to the latest in pushbuttons

Attractively keyed in color and design to the pushbutton systems it describes, this booklet, "Master Design," has its 26 pages uniquely indexed and gate-folded for further emphasis on the appearance angle of the line's control units. Sections are devoted to pushbuttons, indicating lights, selector switches, roto-push buttons, covers and enclosures, accessories and dimensional data. Size, flexibility, durability and appearance of the systems are stressed, with illustrations of the infinite number of possible combinations, both in color and in circuits. *Cutler-Hammer Inc.*

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### 10 product bulletins on magnesium trucks

A series of ten new product bulletins covers Magline's 4-wheel magnesium trucks, giving photos, detailed descriptions and specification data in each. Platform, trailer, box and tow-vendor trucks are among the models described in the bulletins that include facts on capacity, platform, casters, handles, deck height, weight, etc. *Magline Inc.*

... for your copy, circle No. 160

### Industrial rubber items detailed in brochure

Conveyor belt attachments, pulley lagging, chute liners and other similar rubber products for industry are treated in the four pages of this brochure. Also described are the company's facilities for development, design and manufacture of special industrial rubber parts, and such services as tank lining, roll covering, custom molding and extruding. *Holz Rubber Co., Inc.*

... for your copy, circle No. 161

### 16 pages on dust control for industry

The importance of dust control to industry in relation to reduced maintenance costs, employee morale and commercial utilization of dust by-products is described in a 16-page illustrated reference bulletin. The manual outlines control and efficiency standards in dust collection, lists primary parts of an engineered dust control system, and in a case history demonstrates benefits of dust control in handling a community relations problem. Illustrations and text give condensed data on self-cleaning cloth, cloth bag, and screen collectors, as well as wet collectors, both centrifugal and the self-contained ventrijet. (Bulletin 922) *Pangborn Corp.*

... for your copy, circle No. 162

### Hand truck catalog covers over 60 types

This 54-page catalog provides a comprehensive check-list of the many types of hand trucks available for commercial and institutional use. More than 60 categories are listed in the two-part index which classes both alphabetically and in order of appearance. Construction details, such as smooth sheet steel deck, roller-bearing wheels, rounded corners, pressure lubrication on wheels and casters and quiet, easy-rolling one-man operation, are pointed out. Specification charts, drawings, photos and brief copy cover vehicles such as platform, oxygen tank, baggage, shelf, vault, package, printers, quiet box, book, chair and many other trucks; instrument tables; garment racks and hangers; waste material collectors, and a variety of wheels, casters and accessories. *Laughlin Manufacturing Co., Inc.*

... for your copy, circle No. 163

### 12 pages of data on variable pitch drives

Two types of variable pitch drives are outlined in this 12-page catalog with complete specifications, engineering information and tables of practical stock drive combinations for easy selection. Illustrated and described are single-groove, wide range variable pitch sheaves in fixed bore for NEMA standard shaft sizes, with companion sheaves for malleable split taper compression bushing of  $\frac{3}{4}$  to  $2\frac{1}{16}$ -in. bore range, and locking ring type variable pitch sheaves in single-groove with a  $\frac{3}{4}$  to  $1\frac{3}{4}$ -in. bore range and companion sheaves with a  $\frac{3}{4}$  to  $2\frac{1}{16}$ -in. bore range. The lock ring sheaves are also available in two-groove type in a variety of sizes. *Browning Manufacturing Co.*

... for your copy, circle No. 164

### 8-page catalog about hydraulic plate shearing

Complete data on controls, construction and distinctive features of the hydraulic plate shear appear in this 8-page pamphlet with application pictures and dimensions chart. The latter lists more than 35 models in seven different types with weights varying from 24,000 to 140,000 lb. Equipment, accessories and modifications for the shears are also given. *Pacific Industrial Manufacturing Co.*

... for your copy, circle No. 165



### Data folder describes hydraulic lift trucks

Several models of the Century 1000 series of hydraulic lift trucks, 1,000-lb. capacity, manual or electric, are covered in this brochure. Specifications, pictures and uses are included for special duty items such as die winch and boom; barrel and drum tine, drum clamp, barrel clamp, drum rotator, dump hopper, adjustable forks and roller platform trucks. Gives dimension and weight chart for two types with six lift heights from 48 to 108 in., and corresponding overall height from 63 to 123 in. *Century Products Co.*

... for your copy, circle No. 166

### Gyrol fluid drives for 1/2 to 25-hp. applications

An illustrated 16-page booklet covering Gyrol fluid drives for 1/2 to 25-hp. applications describes the firm's Types T, TM and VS units for industrial use in the low horsepower range. The fluid drive principle is explained and advantages of the units are given. Performance curves compare starting torque, starting current and heat generation characteristics of a general purpose a-c. motor direct-connected to a load with those of a similar motor utilizing the fluid drive. Other data given include selection tables, installation type drawings, dimensions and how to order information. (Booklet 9119) *American Blower Corp.*

... for your copy, circle No. 167

### Facts about safety hooks for hoists

Over 20 types of safety hooks in a complete range of sizes are described here. Component parts are clearly explained, most types are pictured, and shank dimensions for all sizes are listed in a chart. A sample ordering specification sheet is included, as well as a data sheet for hoists from 1/4 to 1-ton capacity covering 50 makes and models of widely-used hoists for various purposes. *E. D. Bullard Co.*

... for your copy, circle No. 168

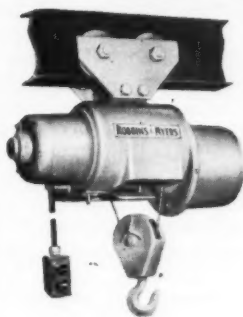
### Engineering data on Levelator lift line

Heavy-duty oil-hydraulic lifts for all industrial uses are described in this 20-page brochure. Featured are standard 6,000 and 12,000-lb. capacity lifts widely used for loading highway and rail carriers direct from plant floor level, machine feeding and similar operations. It also covers hydraulic lifting devices for unusual requirements and Leva-Dock loading dock ramps and truck levelers. Gives complete engineering and operating data. *Rotary Lift Co.*

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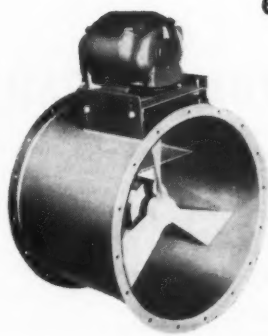
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Type BT fans are designed for applications where the motor must be kept out of the airstream. In-line installation eliminates fan platforms and duct elbows. The externally mounted motor, isolated bearing assembly, air-tight drum and belt tube provide complete protection against environmental damage. Typical applications include corrosive, explosive, inflammable, high-temperature, grease or dust laden air.

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### 20 pages on automatic material handling

Automatic processes as related to the fundamental goals of management are discussed in this presentation on the Selectomatic dispatch system of automatic, unattended materials handling. There are sections on monorails; dipping and drying operations with the dispatch system; controls; the rubber industry, etc. Equipment of this line is pictured and described, and a chart points out functions and features. *The Louden Machinery Co.*

... for your copy, circle No. 170

### Pump bulletin has easy-to-use table

An easy-to-use table for determining horsepower, capacity and head for vertical pumps makes this 12-page bulletin worth keeping. Features of the Verti-line close-coupled industrial pumps are clearly illustrated. Covering pumps of 20 gpm. to 30,000 gpm. capacities, with heads to 600 psi., the catalog contains sectional views, material specifications, schematic application drawings and photos of installations. *Layne & Bowler Pump Co.*

... for your copy, circle No. 171

### All about one-contract construction service

"The Empire Story," about a complete building construction service under one contract, is a heavily-illustrated 22-page brochure covering steel buildings for many purposes. Sections are devoted to background, services and facilities of the firm; standard and custom industrial buildings; standard buildings with special fronts, commercial, agricultural and portable buildings. Stressing the one contract under one-supervision plan, the book details time and money-saving features, variety and flexibility of design, and innovations such as colored weather-resistant steel sheeting. *Empire Steel Building Co.*

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See Directory listing page 142

### Numerical control of machine tools

Principles and mode of operation of the Digimatic tape control system for machine tools are described in a 12-page booklet that covers preparing, checking and entering data, and operating a machine control unit. The system of numerical control of machine tools through use of magnetic tape consists of planning desk, high-speed special purpose computer and machine control unit. At the desk, dimensional data are fed through a keyboard into the computer which transforms it into electrical pulse form, then records pulse signals on tape. Then the tape controls servomotors on the tool, guiding it through three-dimensional motions simultaneously to produce complex curves. The book tells how the company offers a service for small manufacturers who wish to use the tape. *Electronic Control Systems, Inc.*

... for your copy, circle No. 173

### Data on power tools for wood, metal and plastic

More than 15 classes of power tools for cutting, shaping, drilling and finishing, plus a variety of accessories and supplies, are contained in this comprehensive catalog. Several new tools are described for the first time and contents include details, specifications and illustrations. Among the tools for use on wood, metal and plastics are band and contour saws, band filers, cutters, shapers, drill presses, tool and knife grinders, jig saws, jointers, lathes, planers, sanders and spinning tools. *Boice-Crane Co.*

... for your copy, circle No. 174



## Data book describes eddy-current machinery

Basic principles of eddy-current machinery are explained in the opening pages of this 16-page manual. It goes on to discuss characteristics of the Dynamatic line of rotating equipment, covering torque, heat, cooling, and control. Pictures show typical types of Dynamatic drives, couplings, brakes and the dynamometer for testing engines, motors and turbines. A unique drive for mechanical presses using eddy-current coupling and brake is described, and special purpose units are briefly mentioned. Typical application pictures show equipment used in a cement mill blower, in testing automotive torque converters and other operations. *Dynamatic Division, Eaton Mfg. Co.*

... for your copy, circle No. 175

## Custom built equipment for material handling

This brochure gives facts on a firm that designs and manufactures custom built material handling equipment. Typical products such as a corrugated box, dump hopper, rack dolly, cooler basket, die rack and others are pictured and described. Their service in metal fabricating is also detailed, with illustrations of items such as conveyor hooks, radiator racks, casting buckets, industrial trailers. *Handling Equipment Corp.*

... for your copy, circle No. 176

## Facts about 3 types of ironwalk steel grating

Precision-built, test-developed ironwalk steel grating is treated in this manual that contains tables about type selection, safe loads, bearing bars and panel widths. Details are given for the grating in riveted, welded and mechanical lock types. The eight-page booklet also has stair tread dimensions, application illustrations and data on fabricating services. *Joseph T. Ryerson & Son, Inc.*

... for your copy, circle No. 177

## 16 pages about the conveyor-elevator

A heavily-illustrated manual, this 16-page booklet gives full particulars on the Zipper closed-belt conveyor-elevator, its uses and advantages. How this equipment has been successfully used for elevating seed corn, for conveying unfired ceramic pellets, for carrying dry paint pigments and in other operations is told in a series of pictured case histories. Specifications, diagrams and dimensions are given for the conveyor and accessories. *Stephens-Adamson Mfg. Co.*

... for your copy, circle No. 178

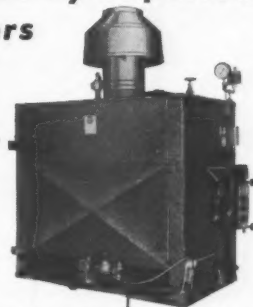
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# 10

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Illustrated above, 22 H.P. gas fired model. Other sizes 1½ H.P. through 125 H.P. Also available for oil firing.

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**1 RAPID STEAM GENERATION**—Full steam pressure is developed in less than 10 minutes from a cold start with a Parker Boiler. This feature alone means drastic reductions in fuel cost when compared with boilers requiring an hour or more to develop full operating pressure.

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**3 LOWER FUEL COST**—Many industrial plants have seen their fuel bill reduced up to 50% after replacing their present boiler with a modern Parker Boiler. This is fully accountable to a combination of the rapid steam generation and inherent operating efficiency built into every Parker Boiler.

**4 SAFETY**—Parker Boilers have never been known to internally explode nor has it been possible to induce such an explosion under most severe tests.

**5 WATER TUBE DESIGN**—This design has proven superior in every large modern boiler installation throughout the world.

**6 EXTRA HEAVY CONSTRUCTION**—Every Parker Boiler from the smallest to the largest is manufactured to exacting standards far exceeding any code requirement. You may fully expect more years of low cost service from a Parker than from any other boiler by following the simple operating and maintenance instructions included with every boiler.

**7 FULLY AUTOMATIC**—The finest controls, internationally sold and serviced, govern all phases of operation automatically with maximum safety.

**8 COMPACT DESIGN**—Per horsepower rating, few boilers can fit in the small

area required for a Parker. This is of particular advantage where expanded plant operation requires more steam and it is impossible to allocate additional space for a larger boiler.

**9 COMPLETE PACKAGED UNIT**—Parker was one of the first companies in the world to offer a packaged boiler. All controls are mounted and electrically wired with burners installed ready to connect to electric, fuel and water supply. Prior to shipment every Parker Boiler is thoroughly test fired under actual operating conditions.

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See Directory listing page 140

## Inorganic zinc coating "cold galvanizes" steel

In this brochure, the makers of Dimetecote describe general physical and chemical properties of this inorganic zinc coating designed for structural steel, tank interiors and exteriors, towers and equipment. Composition, application, stability, curing, coverage, finish and maintenance are treated in the general properties section, while the list of physical properties cover electrical, flexibility, adhesion, film thickness, etc. How the coating resists or is insoluble in fresh and salt water, alcohols, chlorinated hydrocarbons and other substances is detailed in the final section. *Amercoat Corp.* ... for your copy, circle No. 179

## 68 pages on movable metal walls series

Four series of movable walls are covered in complete detail in an easy-to-read 68-page catalog containing more than 50 photographs of typical installations. Featured is a new series, called "milluminum" partitions, based on a new concept in modular integration of movable interiors. Details include brief copy and four pages of perspective drawings. Separate sections of the manual treat the other three types of walls—flush pilaster, new executive and commercial. Installations in commercial, industrial and public buildings; laboratories; schools and universities, and every type of non-residential structure are shown. Photographs, detail drawings, and cutaways are used to illustrate design and construction features, accessories and hardware. *The Mills Co.*

... for your copy, circle No. 180

## Facts on arc quenching a-c. motor starters

A-c motor starters, with the arc quenching principle they feature, are covered in two brochures. One booklet contains labeled photos of the starter and its enclosure, including wiring diagram and coil, heater, and spare part data. Several types of enclosures and units are shown, plus service kits for power contacts, and double and single control circuit contacts. The accompanying two-page leaflet has five two-color drawings, detailing the contactor construction which uses both magnetic blowouts and double break contacts for arc quenching. *Clark Controller Co.*

... for your copy, circle No. 181

WESTERN INDUSTRY — April 1957



## Clamping attachments for Allis-Chalmers trucks

A new line of clamping attachments added to the firm's line is described in this catalog's eight pages. For use with lift trucks for palletless material handling, the assortment includes clamps, side-shifting clamps, rotators and rotating clamps. Photographs, dimensions and specifications are given for all items. *Allis-Chalmers Mfg. Co.* . . . for your copy, circle No. 182

## Data on precision switches for your machine tools

This eight-page fold-out brochure covers six of the more popular design series in the Micro Switch line of heavy duty precision switches for machine tools and other industrial equipment. Actuator design charts for each of the series—LS, ML, F, LN, OP and X, and E and V—include sketches of variations for more accurate ordering. A four-color chart illustrates increase in production rate and decrease in accidents, material waste and down-time with installation of these precision switches. *Micro Switch Division of Minneapolis-Honeywell Regulator Co.* . . . for your copy, circle No. 183

## Six-page bulletin gives facts on dock ramps

This six-page fold-out fact sheet about the Trans-O-Matic line of dock ramps explains how the ramps provide a "gangplank" between the dock and the bed of truck trailer. Power-operated and automatic-leveling, the ramps are made for either air-oil or electric operation. The bulletin points out design features such as ample lip travel with either fixed or hinged lips, high load capacity, rigid construction, safety skirts, etc. Complete specification data is given, with detailed dimension drawings and application photos. *Globe Hoist Co.* . . . for your copy, circle No. 184

## Manual lists four types of welded steel tubing

This 16-page manual on welded steel tubing brings out salient facts for tubing formed from Zincgrip steel, which has a special zinc coating; aluminized steel with aluminum coating; hot rolled steel, and cold rolled steel. Pressure tested tubing and fabricated parts are also included. There are sections on structural advantages, sales features when used in products, how the tubing is supplied, mechanical properties, and fabrication. Tables, drawings and many application photographs add to the book's usefulness. *Armco Steel Corp.* . . . for your copy, circle No. 185



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## MAY-FRAN STANDARDIZATION

Developed to provide the ultimate of versatility, the May-Fran program of STANDARDIZATION permits users to create and construct their own conveyors to meet individual needs.

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## MAY-FRAN ENGINEERING, INC.

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167

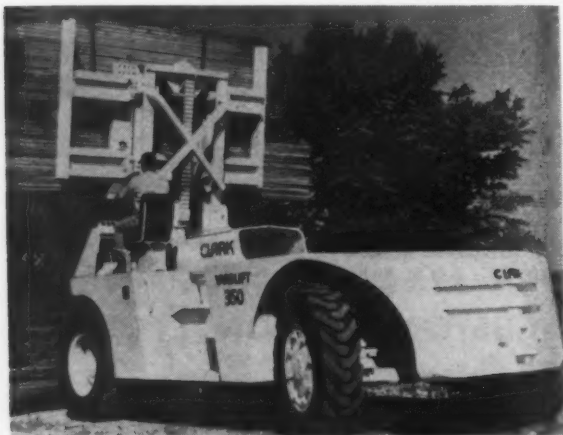


# NEW EQUIPMENT for Western plant operation, production, and maintenance

USE RIP-OUT POSTCARD, page 173, for more information on products described.

## OUTDOOR FORK TRUCK

... 35,000-lb. capacity with pneumatic tires



The operator sits above the left front fender for a clear view of the load on this truck named the Clarklift Y-350 and designed for heavy lifting and tiering work around steel mills, lumber yards and similar outside locations. Plus full visibility for driver when raising or placing a load, the vehicle has direction selector levers and lift-power-tilt levers on steering column for fingertip control, power steering and air service brakes. A hood that slides back on rollers to expose the engine completely gives servicing ease. Tire size is 14.00 x 24 and lift speed is 26 ft. per min. loaded. A power-shifted four-speed transmission coupled with a torque converter and a 404-cu. in. six-cylinder engine provides power for operation over rough terrain. *Clark Equipment Co.*

... for more details, circle No. 186 on postcard

## SMALL PARTS ASSEMBLY FEEDER

... with side-by-side, tapered hoppers

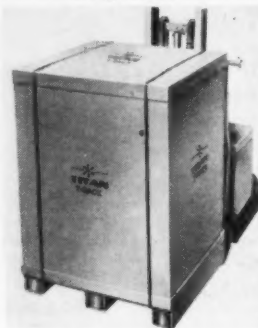


Motion economy for assembly operations are stressed in this Model M feeder that has parts hoppers mounted side by side and in various heights on a rack, so that all parts are within minimum reach. The tapered hoppers, narrowest in front, form an arc when units are placed side by

side and a "stepped" aluminized insert in the hopper bottom controls the rate of parts flow. Other features are the hopper lip dimensions and angle to afford efficient grasp and removal of parts; hoppers with sponge rubber bottoms for use with small screws, etc., and hopper top extenders for increased capacity. Units have "Eye-ez" green baked enamel finish over steel. *Chas. Wm. Doepke Mfg. Co., Inc.* ... for more details, circle No. 187 on postcard

## BULK CONTAINER

... self-palletized and expendable



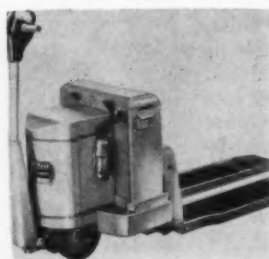
Developed for handling and shipping of granulars, salts, powders, chemicals and the like, this T Pack container will accommodate up to one ton, dependent upon material density, and will stow snugly in standard boxcars and trailer trucks. Internally supported, it has a lid that can be strapped or taped for security. Said to have great strength and light weight, the container

is low in cost and can replace bags and permanent pallets, thus eliminating individual loading, sealing, fastening and handling. Delivered knocked down, the container's standard specifications are 35 x 35 x 48 in. *Titan Pallet Co.*

... for more details, circle No. 188 on postcard

## HYDROELECTRIC PALLET TRUCK

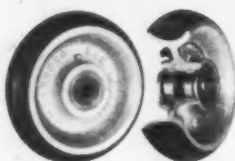
... with high floor clearance



This hydroelectric pallet truck with high floor clearance was designed to eliminate the pallet damage possible with small hand motorized low-lift pallet trucks. The truck has link action which gives a greater floor clearance at the critical spots during pallet handling operations. An

automatic lowering control built into the hydraulic system permits the pallet load to be lowered gradually to the floor or into position, and when the weight is released from the forks, they immediately drop down into their lowered position. *Lift Trucks, Inc.*

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... Industrial Wheel for Continuous Operation Systems

LOADMASTER, with locked-in DuPont Neoprene tires, increased load capacity — same rollability. Resists fats, greases, acids, sun, heat and cold. Low operating temperatures eliminates heat as wheel problem. Sizes from 6 x 2 to 12 x 2½.



Send for new catalog. R & K Industrial Wheels, 1945 N. 7th Street, Richmond, Calif.

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WESTERN INDUSTRY — April 1957



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Super-Bondsit is a white liquid latex emulsion which when added to cement floor topping (in place of most of the mixing water) offers these cost and quality advantages:

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Self-Vulcanizing  
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RUBBER REPAIR MATERIALS

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## GAR-BRO WHEELS

FOR ALL INDUSTRIAL APPLICATIONS



26

TYPES & SIZES

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WHEEL DIAMETERS: 21", 20", 18", 17", 16", 15", 12", 10", 8", 6".

BEARINGS: Tapered roller, straight roller or ball.

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Write for catalog.

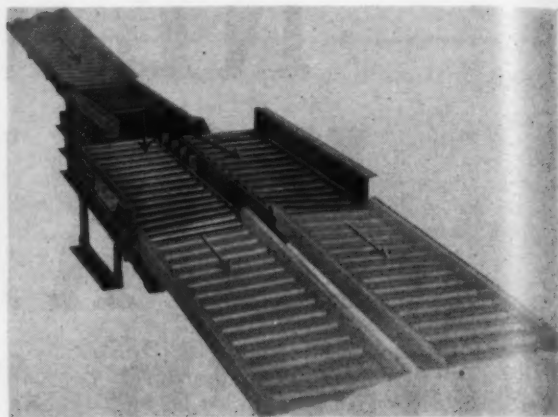
**GAR-BRO WHEEL COMPANY**

Division of Garlinghouse Bros.  
2415 E. Washington Blvd., Los Angeles 21, Calif.

...for more details, circle No. 111 on Reader Service Postcard  
170 See Directory listing page 129

## AUTO-DIVERGER

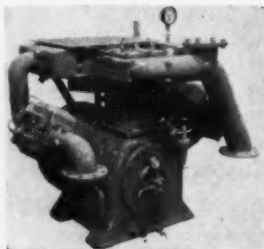
... separates packages on conveyor line



Designed for automatic package separation, this unit provides control of separation in a number of ways. Commodities can be separated to specific lines by counting, machine demand, size or weight differences, or by color code identification. Cases can be fed at a conveyor speed of 150 ft. per min., giving a capacity of one hundred fifty 12-ft. long cases per min. Cases can be end to end on the conveyor line and the Auto-diverger will separate them as required without stopping the flow. (In picture, arrows indicate directions of packages from one line to two lines. Basic separator unit requires only 3 ft. 7 in.) *Standard Conveyor Co.* ... for more details, circle No. 190 on postcard

## AIR-COOLED COMPRESSORS

... of compact design and medium capacity

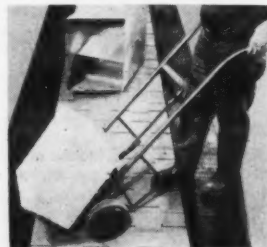


Developed by Swedish affiliates of Atlas Copco, new units of the CT series have been added to Atlas' industrial compressor products. The new series includes a 45-hp. CT-4 model developing 175 cfm, and the 75-hp. CT-6 delivering 340 cfm. Low floor space requirements, comparative light weight, air-cooled operation to simplify installation, and low original cost are said to be the series' major attractions to industrial purchasers. Both models are two-stage single-acting type compressors that develop their rated capacities at only 970 rpm. Other design features are annular-type valves and easy-operating, double-row spherical roller bearings in crankshaft journals. *Compressor Div., Atlas Copco Pacific, Inc.*

... for more details, circle No. 191 on postcard

## FLAT TOP CONVEYOR BELTING

... can be installed flush with floor



The advantages of the usual slat type conveyor belt with carrying surface above the side chains are provided in this flat-top conveyor belting that also eliminates hazards inherent in the slat type that result from movement of slats on convex and concave turns.

WESTERN INDUSTRY — April 1957



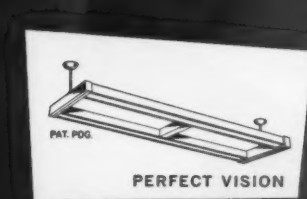
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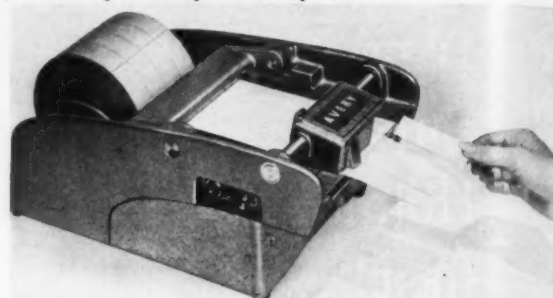
...for more details, circle No. 113 on Reader Service Postcard

Resembling a moving sidewalk, it is useful in flush-with-floor applications for heavy duty assembly work, and its belt clearances are such that nuts, bolts and small tools will not fall through. Belt length, width, speed and carrying capacity are variable. Since no moving parts extend above the belt, it can handle flat or formed-metal stock of greater length than the belt's width when stock is placed at right angles to belt travel. *May-Fran Engineering, Inc.*

... for more details, circle No. 192 on postcard

## ELECTRIC LABEL DISPENSER

... adapts to operator speed

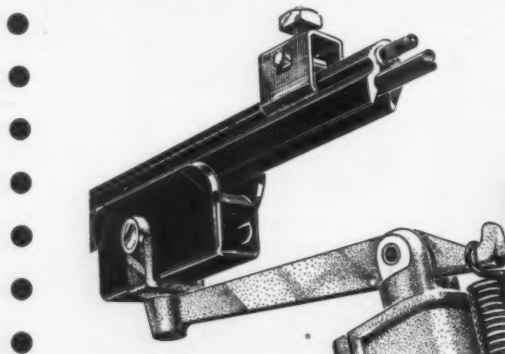


This pressure sensitive label dispenser requires neither speed control nor foot switch, but by having the last label automatically cause the next row to appear, it coordinates feed with operator speed. Dispensing self-adhesive labels singly or up to ten in a row, the E6-6 model is designed with a capacity of 3/16- to 6-in. width rolls, operates at speeds to 100 in. per min. at 60 cycles, and uses a toggle switch backstopped by an "on-off" signal light. It is made of cast aluminum in gray wrinkle finish, weighs 26 lb., and measures 15 1/4 x 8 3/4 x 3/16 in. *Avery Adhesive Label Corp.*

... for more details, circle No. 193 on postcard

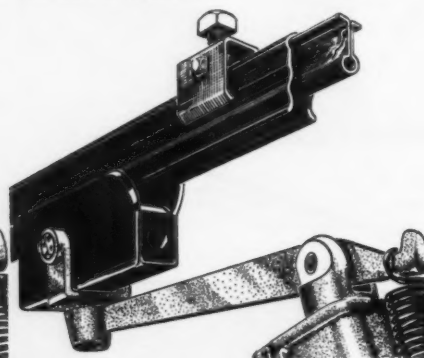
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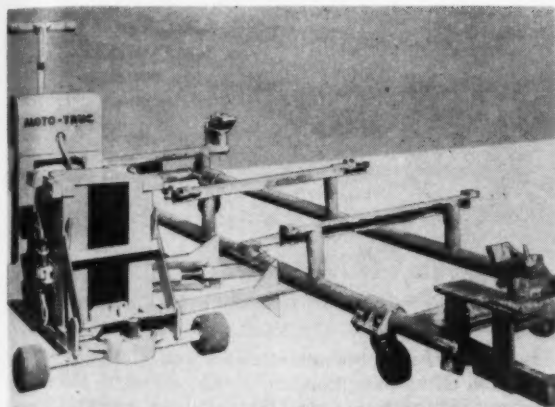
6520 Bissell Street

Bell, California

Phone: LUdlow 5-0233

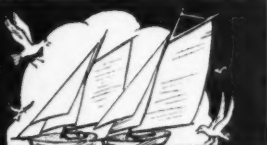


## SIDE HITCH TRACTOR ... operates alongside trailers

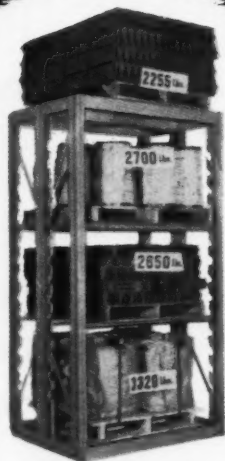


Designed to haul trailers loaded with bulk materials which overhang the ends too far to make end coupling convenient, this tractor has an electric-hydraulic clamp that engages the underside of the trailer frame. The clamp arm is pivoted for use on either side of the tractor, or it can be locked in vertical position for use of tractor in conventional manner. The arm can be built in any practical length and the clamp device designed to suit the trailers underframe. Powered with a 12 v. battery with forward and reverse speeds, the tractor measures 33 x 44 in. It will easily, efficiently move trailers equipped with four swivel wheels such as are used in auto body paint shops or for hauling long loads like pipe, structural steel, etc. *The Moto-Truc Co.* ... for more details, circle No. 194 on postcard

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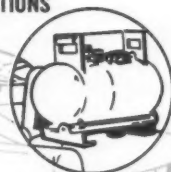
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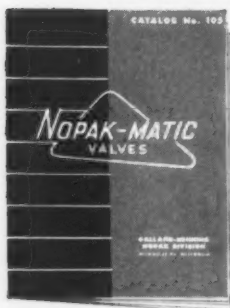
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176

## HIGH TEMPERATURE OIL

... resists oxidation, sludging, breakdown



Longer usability, low maintenance cost and substantial savings in oil consumption and power are features of this lubricant for protecting machinery operating at high temperatures. Its low carbon content and anti-gumming advantages make it useful for air compressor use, electric motor ring bearings, multi-plate friction clutches, heat transfer systems, etc. Baked for 72 hr. at 300 deg. F. in a comparison test, the oil showed no trace of carbon residue. Keystone Lubricating Co.

... for more details, circle No. 195 on postcard

## COLORED SAFETY HARDENERS

... aid quality control of epoxy resins

Both quality control and eye appeal of epoxy resins can be improved with the use of colored safety hardeners available in red, blue, yellow, green, orange and black. As a quality control measure, the hardeners added to an epoxy resin make it possible to spot inadequate mixing indicated

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Quality Built  
Economy Priced



Here's the right answer to every truck or car loading problem... Bronco Bridge Ramps. Quality constructed, Bronco's exclusive design gives you greater strength, longer service and added safety features. Find out about all the Bronco features today...you'll be surprised at how economically they are priced.

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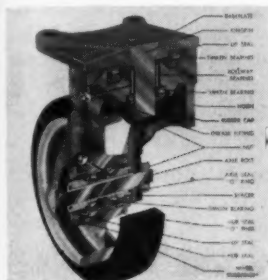
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See Directory listing page 122

WESTERN INDUSTRY — April 1957



by striations, streaks and uneven color distribution. Casual inspection of non-colored hardeners and the resin has never been able to bring this out. On the esthetic side, a base epoxy resin can now be used to prepare castings and laminates of attractive colors, thus aiding in identification of parts and also providing better appearance and permanent effect. Cured colored epoxy parts can be used for colored laminated and cast plastic tools, coded for identification and service; sealants on pipes to aid identification and inspection; epoxy potting compounds, and structures, integrally colored, which do not require painting. *Furane Plastics, Inc.* . . . for more details, circle No. 196 on postcard

### SEALED WHEELS AND CASTERS ... designed for exposure to chemicals



A lip-type seal that excludes such foreign matter as liquids and damaging abrasives, but still permits purging of semi-solid lubricants from bearing cavities, is a feature of the "55" series, latest of Aerol's five types of sealed units. The new concept in caster design, exclusive with this firm, provides greater turning

freedom both in wheel and caster than the previously used "O" ring. The Timken thrust bearings in the caster and the roller bearing around the kingpin are further protected by a hard rubber sealing cap. Wheels and caster come in sizes from 6 to 20-in. wheels, and in load ratings from 480 to 2,000 lb. *Aerol Co. Inc.*

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## Pacific Telephone



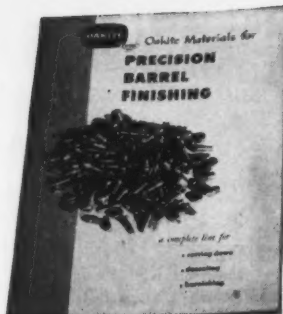
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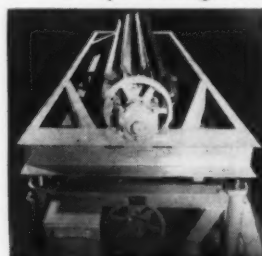
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## BRUSH-SANDING DRUMS

... for polishing wide metal sheets

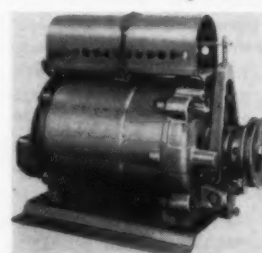


Drums from 37 to 74 in. wide for sanding or polishing wide metal sheets have a series of fibre brushes spaced around the circumference of the drum to back up a series of abrasive strips. The strips feed out from inside the drum and wipe the abrasive against the stock with a smooth resilient action, enabling the abrasive to sand low areas, warps or sinks without grinding down high spots. This process achieves a uniform scratch pattern across the entire width and length of the sheet. New abrasive is fed out of the drum as required. Shown here is a 74-in. drum that sands a continuous sheet passing above the revolving drum. Merit Products.

... for more details, circle No. 198

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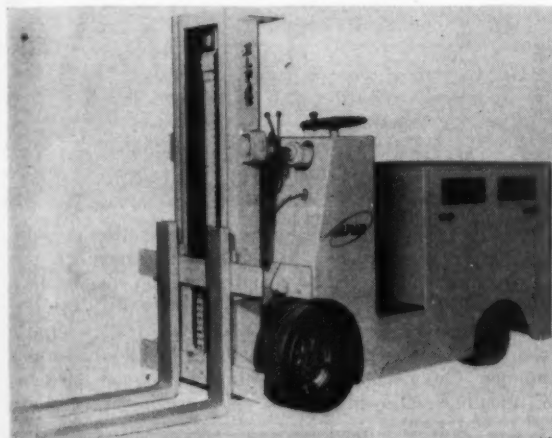
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**WESTERN INDUSTRY — April 1957**



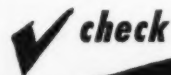
winding equipment and conveyors, it is expected to have industry-wide applications. In the motor a constantly running motor-driven fly wheel with a short throw clutch has two solenoids arranged in tandem—one to engage the clutch and the other, the brake. Control is accomplished by a stop-start push button station or, automatically, by limit switches, sensing devices, timers or other controls. Designated the type "J", it is a totally enclosed, fan-cooled unit with pre-lubricated ball bearings available for single-phase 60-cycle, 115/230 v. operation in 1/4, 1/2 3/4 and 1 hp. ratings, and for two or three-phase, 60-cycle, 208, 220/440 or 550 v. operation in ratings from 1/4 to 2 hp. Diehl Mfg. Co. . . . for more details, circle No. 199 on postcard

## FORK TRUCK

. . . stand-up model with either-side mounting



For use where severe operating conditions must be met in day-to-day handling, this 6,000-lb. capacity fork truck has a frame of heavy gage reinforced formed steel plates welded into a rigid box structure. Uprights are of alloy steel, hot pressed channels, with inner uprights and elevator on widely-spaced rollers. Features unique with this model include maximum visibility for the operator, hydraulic lift and tilt for fast operation, hydraulic wheel brakes and hoist speeds, with full load, 20 fpm. up, 40 fpm. down, and without load, 40 fpm. up and 36 fpm. down. Its travel speed is 5.5 mph. without load, and 5 mph. with full load. The model also has four-speed magnetic control with time delay between speeds, and deadman control. Drive shafts are mounted on taper roller bearings and are splined to a four-pin differential. Elwell-Parker Electric Co. . . . for more details, circle No. 200 on postcard



*the many advantages of*

**SORBOCAST  
CAST IRON  
DAYTON FOUNDRY**

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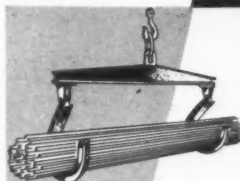
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April 1957 — WESTERN INDUSTRY



**DOWN'S SAFETY GRABS**

**...GRIP ANYTHING!**

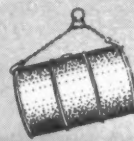


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See Directory listing page 127

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PROTECTION  
100% of the  
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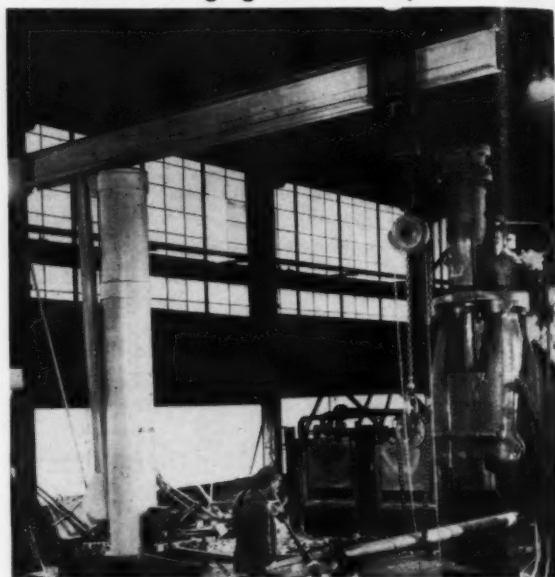


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## JIB CRANE

... cushions forging hammer impact loads



This bracket-pillar tension-brace foundation-mounted type of jib crane has its 220 deg. swinging members pin-connected and designed so that the tension member is a shock absorbing spring. The long spring rod in the rear of the crane coupled with the spring in the trolley serve to cushion all of the large impact loads created by the forging hammer. This construction eliminates common top bracing members, allowing use of an overhead crane which

**For Chain Drive Users**

**COSTS GOING UP?**

**KEEP 'EM DOWN**

Yes sir! With over 1200 sizes to choose from, in all types, and more than 100,000 to draw on—your special sprocket is probably stock at Cullman.

What's more, complete chain drives are available "Off the Shelf" in all pitches, in different speed ratios.

Save time and cut costs on your next chain drive need. Specify stock—Cullman, that is.

Inquiries invited for specials in any type, material or quantity. For full particulars write for Catalog No. 51, or see your local Cullman Distributor.

with

**cullman**

**STOCK SPROCKETS**



**cullman**  
POWER TRANSMISSION  
ROLLER CHAINS AND SPROCKETS

REPRESENTATIVES AND DISTRIBUTORS  
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PRINCIPAL CITIES

CULLMAN WHEEL COMPANY • 1337 ALTGELD STREET • CHICAGO 14, ILLINOIS

...for more details, circle No. 129 on Reader Service Postcard

## Designers Manufacturers Erectors

BELT • CHAIN  
GRAVITY ROLLER  
AND  
SPECIAL CONVEYORS

Designed  
To Your Requirements

## HURT CONVEYOR CO.

1415 Mateo St. Los Angeles  
TRinity 6408

...for more details, circle No. 130  
See Directory listing page 133

WESTERN INDUSTRY — April 1957

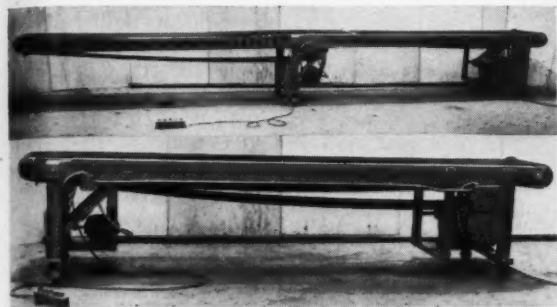


covers the total floor space by running over the top of the free standing jib crane and other equipment in the building. *All-State Engineering Co.*

... for more details, circle No. 201 on postcard

## TELESCOPING CONVEYOR

... portable with up to 30-ft. "reach"



Designed primarily for use in loading and unloading jobs of any nature, the Han-Dee portable telescoping conveyor is available with either electric motor or hydraulic drive system and is manufactured to customer's specifications. Through a "third pulley" design, this unit requires no storage space for extra belting when not extended. Belt tension is maintained at all times. Although smaller units can be wheeled right into rail cars or trucks, it is not necessary to mount the vehicle with this unit. Operation is a matter of wheeling the unit up to the vehicle or dock and extending the telescoping portion of the belt unit to the load. It is available in aluminum, for users requiring a lightweight unit, or steel. An extra "foot" is added to support extendable portion of the conveyor for extra-long units. *Star-Line Conveyor Co.*

... for more details, circle No. 202 on postcard

## TRENT Engineering and Design Trouble-Proofs IMMERSION and CIRCULATION HEATING UNITS!



For Efficient Immersion Heating of

- HOT WATER TANKS • WATER BATHS
- RINSES AND CLEANERS • GLUES AND OILS

Rugged Trent Water Immersion Heaters are available in a complete range of types and sizes for heavy duty service up to 100 KW in single packaged unit.



Dependable, Trouble-Free Heating for

- CIRCULATING OIL SYSTEMS
- ATOMIZATION • HEAT TRANSFER FLUIDS
- STORAGE TANK HEATERS

Heavy duty Trent Oil Immersion Heating Units offer packaged unit design in a range of sizes for service up to 50 KW.

**TRENT IMMERSION AND CIRCULATION  
HEATERS ARE UL AND CSA APPROVED**

Let Trent's more than 25 years' manufacturing experience solve your heating problem. Discuss your application with a Trent representative today!

Trent Representatives in  
Principal Cities Coast to Coast



Electrically Heated Industrial Equipment  
242 LEVERINGTON AVE. PHILA. 27, PA.  
In Canada: Supreme Power Supplies Limited, Toronto, 14

...for more details, circle No. 131 on Reader Service Postcard  
April 1957 — WESTERN INDUSTRY



## the most flexible tools in the metal working industry

### VICTOR COMBINATION WELDING AND CUTTING UNITS

**FOR EASE OF HANDLING DIFFERENT JOBS** . . . Welding, brazing, hardfacing, heating, heat treating, descaling and paint burning. Cutting, trimming, descaling and weld scarfing.

**WITH A WIDE VARIETY OF NOZZLES, TIPS  
AND CUTTING ATTACHMENTS**, with quick-change, hand-tight, time tested sealing ring connections.

**RELIABLE FIELD-PROVED REGULATOR DESIGN** for safe, dependable pressure and flow control.

See for yourself how easy it is to handle your work when you use Victor equipment. Ask your Victor dealer for literature or a demonstration.



Mfrs. of welding & cutting equipment;  
hardfacing rods, blasting nozzles;  
cobalt & tungsten castings;  
straightline and  
shape cutting machines.

### VICTOR EQUIPMENT COMPANY

844 Folsom St., San Francisco 7 • 3821 Santa Fe Avenue, Los Angeles 58

...for more details, circle No. 132 on Reader Service Postcard

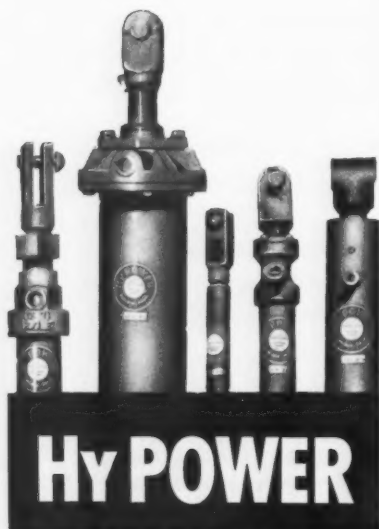


# Hy POWER SUPPLIES "CANNONS" TOO . . . !

Why specify a hydraulic cylinder that is outsized — too large or too small for your job. To borrow a cliché, "Why buy a cannon when you only need a rifle?"

HyPOWER makes the big ones, of course — up to 6 inches. We make the small one's, too. In fact HyPOWER allows you a selection from 14 types and more than 350 diameters and strokes! Need we say that selection like this saves you big money? And remember, these are rugged cylinders made for *today's* highway construction machinery and agricultural equipment. Heavier cylinder walls and shafts . . . simple but accurate stroke controls . . . all-welded construction without staybolts.

Summing it up; whether you want a "rifle" or a "cannon" for your cylinder application, check HyPOWER first. A note from you will see a HyPOWER catalog on its way to you by return mail. Manufactured by TURLOCK IRON AND MACHINE WORKS, TURLOCK, CALIF.



## Hy POWER

### HYDRAULIC CYLINDERS

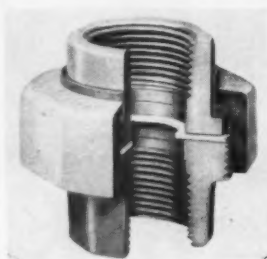
FACTORY REPRESENTATIVES  
**GREYER & GREYER**

P. O. BOX 47 - STOCKTON, CALIFORNIA

... for more details, circle No. 133

## FORGED STEEL INSULATING UNIONS

... prevent electrolytic corrosion

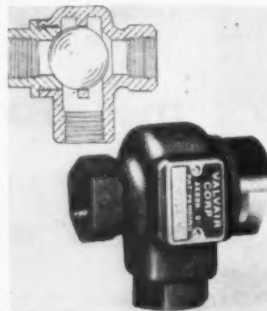


Manufactured in 3,000-lb. class, sizes  $\frac{1}{4}$  to 3 in. in screw-end and socket-welding types, these unions are used to prevent electrolytic corrosion due to flow of electric current along pipe lines. Tailpiece, thread piece and nut are drop forged from carbon steel, while the insulating sleeve, between tailpiece and nut, is of fabric-reinforced phenolic resin. The gasket sealing the union joint, and in contact with fluid in the pipe, is made of Teflon, a material inert to most chemicals, with good heat resistance and insulation properties. *W. S. Fittings Division, H. K. Porter Co., Inc.*

... for more details, circle No. 203 on postcard

## DIRECTIONAL VALVE

... quickly switches to manual or automatic



Instant switch-over from automatic to manual control of diaphragm-operated valves, cylinders, etc., is a feature of this directional valve suitable for use with air, oil, water or media compatible with Hycar and bronze. Installed as a tee in the inlet lines, the valve permits manual take-over from automatic control, or control from two different sources, and can be used to prevent intermixing when two gases or liquids are being delivered alternately. Simply designed, it is available with  $\frac{1}{4}$  and  $\frac{3}{8}$  N. P. T. ports. Net open area between seat and ball is equal to transverse area of  $\frac{3}{8}$  standard pipe. *Valvair Corp.*

... for more details, circle No. 204 on postcard

## INDUSTRIAL TRUCKS FOR EVERY PURPOSE

MFRS. & DISTR. OF PARTS FOR FORK LIFT TRUCKS

Rebuilt Equipment - New Warranty

SALES • RENTALS

### FORK LIFT TRUCKS

All makes and models. Gasoline and electric powered. Solid and pneumatic tired. 1000 pound to 15,000 pound capacity.

### TRACTORS—INDUSTRIAL

Solid and pneumatic tired 2000 pound to 4500 pound draw bar pull.

### MOBILE CRANES

Swing and fixed booms, 3 to 10 ton capacity. Solid and pneumatic tired.

### HOISTS • CONVEYORS

PALLETS • SKIDS



MOBILE CRANES



WAREHOUSE TRAILERS



PLATFORM TRUCKS



HAND TRUCKS



FORK LIFT TRUCKS



INDUSTRIAL TRACTORS



PALLET TRUCKS



THE

# BOMAN

COMPANY

3316 E. OLYMPIC BLVD.

LOS ANGELES 23

... for more details, circle No. 134 on Reader Service Postcard

See Directory listing page 121

WESTERN INDUSTRY — April 1957





# THE INDUSTRIAL WEST ON ITS WAY

plants • production • distribution • personnel

## GUIDELINES

APRIL 1957

- **ANOTHER \$2,000,000 WORTH OF CONSTRUCTION WILL BE ADDED THIS YEAR** to Glenn L. Martin's recently completed missile plant near Denver, Colo. Added investment will involve three new structures, boosting square footage by 160,000 and **bringing total plant cost to better than \$12,000,000.**
- **IDEAL TO BUILD NEW MEXICO'S THIRD CEMENT PLANT; FIRST WAS ANNOUNCED LESS THAN A YEAR AGO** when Permanente took option on land near Scholle. Land was officially purchased recently (see WI March issue) for \$10,000,000 plant construction. Dewey Portland announced plans for N. Mex.'s second \$10,000,000 cement plant days after Permanente's option. Now Ideal, shipper of cement to the New Mexico area for past 50 years, has decided to build **a \$10,000,000 to \$12,000,000 cement plant** near Albuquerque. Capacity of new plant will be one million bbl. per year. New plant decision stems from "faith in the increasing importance of New Mexico's petroleum and mineral resources and in continued development in the state."
- **ANOTHER \$18,000,000 WILL GO INTO IMPROVEMENTS AT KENNECOTT COPPER'S** Utah Copper Div. facilities. Primary expenditure will be for **expansion of the central power station**—a \$16,000,000 project. Recently announced by Kennecott were plans to spend \$12,000,000 during next two years for other Utah developments.
- **FIRST PRIVATELY FINANCED COMMERCIAL USE OF ATOMIC ELECTRIC POWER will be in operation late this year** when Pacific Gas & Electric starts feeding the output of General Electric's Vallecitos atomic electric power plant near Pleasanton, Calif., into its San Francisco Bay Area system. **Progress report:** Housing for the reactor—an igloo-type structure comprised of 275 tons of steel—has been completed by Consolidated Western Steel. The reactor will eventually drive a 5,000-kw. turbine.
- **BIG PLANT DEVELOPMENTS IN IDAHO:** Three wafer panel producing facilities will be added to Tenex, Inc.'s, existing wafer panel plant near Sandpoint, Idaho. Two of the new plants will get underway later this year **at a cost of \$2,000,000;** the third will be a reality sometime next year. The decorative wafer panel board is produced from sawmill wood wastes.

— News details on following pages —

THE INDUSTRIAL WEST  
ON ITS WAY

is a special monthly feature of . . .



. . . serving plant operating executives  
in the nation's fastest growing region.

609 Mission St., San Francisco 5, Calif.





**TRIPLED SPACE** for Towmotor's Oakland branch is provided by this recent 10,000-sq. ft. addition.

## Towmotor completes expansion in Oakland

Recently completed by Towmotor Corp., in Oakland, Calif., was a 10,000-sq. ft. addition to its facilities at 699 Fourth St. Reportedly tripling the available space at the Oakland branch, the addition will house an expanded parts department and maintenance facilities, including new weld-

ing and paint shops and larger areas for truck overhaul and rebuilding. A showroom for display of new equipment has also been added. *Walter A. O'Brien* heads the Oakland branch of the Cleveland firm, builder of a broad line of industrial fork lift trucks and tractors.

## Crucible opens new steel office building

The West's first all stainless steel office building and largest specialty steel warehouse was recently opened to area businessmen and industrialists by Crucible Steel Co. of America. Located at 6033 East Bandini Blvd., Los Angeles, the new structure was shown to out-of-town visitors at official opening ceremonies during the week of the 10th Western Metal Exposition. Several top company executives from Crucible's headquarters in Pittsburgh, and from the company's subsidiaries, attended the opening. *R. M. Simpson*, Los Angeles manager, heads a staff of some 60 personnel at the facility which also houses West Coast offices of Rem-Cru Titanium, Inc.

## Los Angeles Brush opens San Francisco facility

Opening of a San Francisco branch warehouse at 475 Brannan St. has been announced by Los Angeles Brush Mfg. Corp. *Bob Patterson*, Northern California representative, is in charge of the facility. A full range of catalogued brushes, mops and brooms will be available for jobbers in the Bay area, according to *Jack Hare*, sales manager.

## W. E. Kirk to handle Trent, Inc., products

Trent, Inc., has appointed the W. E. Kirk Co. to represent its line of electrically heated industrial equipment in So. Calif. *Bill Kirk* of that company formerly handled the Philadelphia firm's products for several years.

## Steel drum factory scheduled in Tacoma

Steel Container Corp., recently organized Tacoma firm, is building a plant in that city's industrial area where production of new steel drums is scheduled to get underway about June 1. Expected to cost about \$750,000, the new plant will be the only producer of new drums north of San Francisco and west of St. Louis. Various-sized drums for petroleum, chemical, paint and food industries will be manufactured and distributed by rail, truck, and water routes.

*Arne Strom* and *Sidney Leven*, Tacoma-Seattle industrialists, organized the corporation. Other key men associated in its formation were *Richard Warner*, *David R. Lee*, and *Harold E. Gray*. Warner, formerly regional manager for Rheem Manufacturing Co., is president-general manager of Steel Container, and Lee, a former district sales manager for Rheem, is sales manager of the new concern.

## Gates Rubber builds new unit in Denver

Under construction by Gates Rubber Co., Denver, Colo., is a four-story factory building that will add 162,000 sq. ft. of floor space. Scheduled for completion in November, the building will cost \$750,000 and is being built on the site formerly occupied by a one-story factory for making gas masks. The new structure will house a millroom and tire, belt and hose departments. It will be adjacent and attached to a similar building constructed four years ago.

For more details, adv. opp. pg., circle No. 135 on Reader Service Postcard →

## Kennecott plans big Utah program

An expansion and improvement program announced by Kennecott Copper Corp. for its Utah Copper Division will cost \$18,000,000, with the bulk of the outlay—\$16,000,000—allocated to the company's central power station at Magna, Utah. The program will include installation of a 75,000-kw. turbine-generator, boosting plant output to 175,000 kw., new boiler, cooling towers, electrical switch equipment and a 20-ft. extension to the present building. *L. F. Pett*, general manager of the division, estimates work on facilities at the power plant will start late this fall, with completion of the total project expected within the next three years.

Among other major expenditures approved are \$742,500 to raise the tailings pond dike; \$245,000 for new mill car dumber cradles; \$84,809 for laying new track and electrification of line connection; funds for office and automotive equipment; ventilating facilities, and other improvements.

Kennecott is spending another \$12,000,000 within the next two years for a new ore haulage tunnel from the Bingham Canyon pit to the Copperton assembly yards.

## Lenkurt Electric leases additional facilities

Moving this month into a recently leased and remodeled building will be several departments of Lenkurt Electric Co., San Carlos. In its latest expansion move, Lenkurt has leased a 14,000-sq. ft. building that will permit consolidation under one roof of accounting departments previously at three different San Carlos sites. Also moving to the new structure will be electronic data processing analysts and programmers at work on the company's forthcoming IBM 650 computer. Sierra Electronic occupied the building before its purchase by Philco Corp. last year and subsequent move to Menlo Park, Calif.

## Ditzen firm moves to new Oakland quarters

Recently moved to new quarters at 6002 Telegraph Ave., Oakland 9, Calif., is Ditzen Engineering & Sales Co. Northern California representative for the line of air and hydraulic valves and cylinders produced by Rivett Lathe & Grinder, Inc., Boston, Mass. The new address gives a corner location in a new building, with floor space increased about four times.



BOTTOM-DUMP  
BARGES FOR  
SOUTHERN PACIFIC'S  
"UTAH NAVY"

MORRISON-KNUDSEN  
COMPANY, INC.  
CONTRACTORS

DESIGNED AND  
FABRICATED BY  
**Kaiser Steel**  
Fabricating  
Division

NAPA, FONTANA,  
MONTEBELLO, CALIF.

*Built to serve the growing West...through precision steel fabrication*

To build a \$49,000,000 causeway across the Great Salt Lake, the Southern Pacific is using a "Navy" of six huge bottom-dump barges. After fabrication in our Napa, California, plant, each barge was shipped by rail in 32 giant sections to Utah for assembly on the lake shore. Another example of on-the-job cooperation by the Kaiser Steel Fabricating Division.

For further information, write Kaiser Steel Corporation, Fabricating Division, Napa, California.

STATISTICS: 250' X 55' OVERALL; ASSEMBLED AT LAKESIDE FROM  
THIRTY-TWO 10 TO 30 TON SECTIONS; TOTAL WEIGHT, 1000 TONS;  
CARRYING CAPACITY, 3000 TONS.





# Ledeen VALVES for longer life

Ledeen Valves are built to operate single or double acting pneumatic and hydraulic cylinders, and motors. These valves embody the rotating disc construction to give the longest possible life. They are built in sizes from 1/4" to 1 1/4" standard pipe connections. Available from stock for quick delivery.



## Model HMN

Hand operated to Forward and Reverse. Manual Return to Neutral. 30° throw each way. 60° total throw. Rated at 250 psi.



## Model HSN

Hand operated to Forward and Reverse. Spring Return to Neutral. 30° throw each way. 60° total throw. Rated at 100 psi.

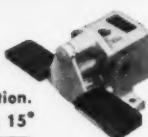


## Model HSR

Hand operated to Forward. Spring Return to Reverse. No stop in Neutral position. 60° total throw. Rated at 100 psi.

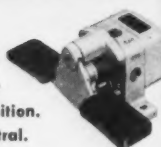
## Model FFN

Foot operated to Forward and Reverse by depressing proper pedal to extreme position. Foot Return to Neutral. 15° throw each way. 30° total throw. Rated at 250 psi.



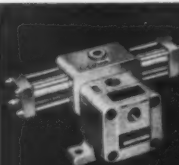
## Model FSN

Foot operated to Forward and Reverse by depressing proper pedal to extreme position. Spring Return to Neutral. 15° throw each way. 30° total throw. Rated at 100 psi.



## Model FSR

Foot operated to Forward. Spring Return to Reverse. No stop in Neutral position. 30° total throw. Rated at 100 psi.



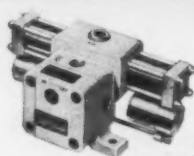
## Model POR

Power operated to Forward or Reverse. No Neutral position. Total throw 60°. Rated at 250 psi.



## Model PON

Power operated to Neutral, Forward and Reverse. Total throw 60°. Rated at 250 psi.



## Model POR

SOLENOID OPERATED

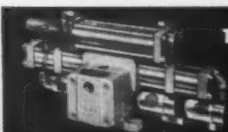
2-position, Power Valve for remote control or automatic operation.

Momentary or continuous energizing.

## Model PON

SOLENOID OPERATED

3-position Power Valve for remote control or automatic operation. Momentary or continuous energizing.



## Time Delay Valve

Pneumatic Time Delay Valve. Adjustable from 2 seconds to 2 minutes. Available in POR and PON Models.

## Pilot Valves



3-way Finger, Cam, Air and Solenoid operated models available in Normally Open and Normally Closed types.



Write for  
Bulletin 1010



VALVES • CYLINDERS • VALVE ACTUATORS  
AIR-HYDRAULIC PUMPS AND BOOSTERS

...for more details, circle No. 136 on Reader Service Postcard  
See Directory listing page 128

## Albuquerque to get Ideal Cement plant

Ideal Cement Co., Denver, has announced its decision to build a cement plant of 1,000,000-bbl. annual capacity in Albuquerque, N. Mex. Having a single kiln with fuel economizer, electronic dust control and provision for doubling capacity quickly and economically, the plant is scheduled to cost between \$10,000,000 and \$12,000,000, with completion set for early 1958.

In announcing the construction plans, *Cris Dobbins*, president of Ideal, said the decision to build "reflects our faith in the increasing importance of New Mexico's petroleum and mineral resources and in the continued development of the state which we are confident will take place in the years to come."

The firm has shipped cement into the state for over 50 years, and for several years has owned a deposit of limestone east of Albuquerque. Engineering studies for the project have been under way for some time, with surveying and site preparation crews at work since January.

## Clevite Corp. opens sales office in Van Nuys, Calif.

Van Nuys, Calif., is the location of a West Coast sales office recently opened by Clevite Corp., Cleveland, for two of its manufacturing units, Cleveland Graphite Bronze Co. and Clevite Harris Products, Inc. The office is at 4629 Harper Bldg., Van Nuys Blvd. *Joseph Palsulich* will be



J. Palsulich



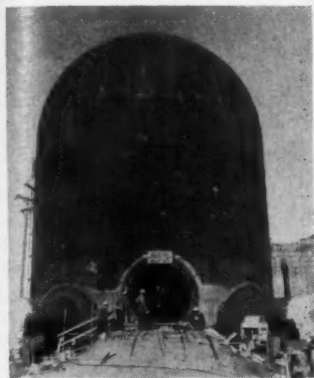
H. M. McCarthy

sales manager for Cleveland Graphite Bronze, manufacturer of sleeve bearings, bushings and other precision parts, while *Henry M. McCarthy* will represent Clevite Harris, manufacturer of metal and rubber parts.

## Sandvik Steel gets new Los Angeles address

Sandvik Steel, Inc., has announced a new address for its Los Angeles branch office and warehouse. Because of expanding business the company moved March 1 to 3338 So. Malt Ave., Los Angeles 22.





**HUGE STEEL IGLOO** will house atomic energy reactor.

### Consolidated Western erects atomic housing

This huge steel igloo, fabricated and erected by Consolidated Western Steel Div., United States Steel Corp., is actually an atomic energy reactor housing for General Electric power plant near Pleasanton, Calif. When the atomic reactor is enclosed in the steel shell, it will produce heat to be transmitted to water, creating steam to drive a 5,000-kw. turbine. Output of the station will be fed into the San Francisco Bay area system of Pacific Gas & Electric Co., later this year, beginning the era of commercial use of privately financed atomic electric power. In construction of the protective enclosure, Consolidated Western workmen at South San Francisco fabricated 275 tons of steel on contract from the Bechtel Corp. Every inch of weld underwent X-ray inspection in the field.

### Martin plans \$2,000,000 expansion in Denver

Expansion at a cost of \$2,000,000 is scheduled for the recently completed Glenn L. Martin Co. missile plant southwest of Denver. It will include three new structures and double by 1958 the 2,500 employees of the plant at work on a \$358,000,000 government contract for design, fabrication and testing of the Titan intercontinental ballistic missile. Expansion plans call for an engineering laboratory, an extension to the administration-engineering building and an addition to the plant cafeteria, adding 160,000 sq. ft. to present facilities that cost over \$10,000,000.

### Remco Manufacturing Co. is new California firm



**R. Havener**

using Rodpak, was Remco Manufacturing Co. General manager of the new firm is **Bob Havener**. Having pur-

chased exclusive manufacturing rights on Rodpak, the firm will establish a national and international distribution network.

chased exclusive manufacturing rights on Rodpak, the firm will establish a national and international distribution network.

The newly built plant for the firm, 10,000 sq. ft. of production area, will house two separate operations, since both Rodpak itself and cylinders using this packing material will be produced. It is reportedly the first plant to produce cylinders of this type in the West. Principals of the firm are all familiar with sawmill operations and the use of telescoping cylinders. They also have extensive experience in both manufacture and distribution of the items.

## TO BETTER SERVE YOU



**PREVENTIVE MAINTENANCE**—Your Braun representative will explain the operation of the preventive maintenance contracts available. Based on the estimated number of hours per week your equipment will be operating, a schedule will be established to provide for regular visits by a Braun preventive maintenance truck. This service provides all the maintenance necessary to insure long, trouble-free life. Lubrication, engine tune-ups, minor repairs and adjustments are taken care of, in your own plant, to insure continuous equipment availability.

**SERVICE**—To insure maximum benefit from your investment, a Braun service representative will call after you have taken delivery, to give your new Clark equipment a complete service check, and to assist in instructing your personnel on proper operation and maintenance procedures.



**PARTS**—The Robert H. Braun Company maintains an exceptionally large stock of replacement parts for your equipment. Additional services include: pickup, and mobile tire press, with complete line of popular size Monarch and Notat tires.



## ROBERT H. BRAUN COMPANY

*Material handling equipment*



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Los Angeles 22

1762 So. Sycamore  
TRinity 7-0657  
Rialto, Calif.

2208 Imperial Ave.  
BEImont 3-0948  
San Diego, Calif.

...for more details, circle No. 137 on Reader Service Postcard



## Ampex creates new audio subsidiary firm

A new firm to be known as Ampex Audio, Inc., has been formed by Ampex Corp. of Redwood City, Calif., manufacturer of magnetic tape recorders. *Phillip L. Gundy*, vice president of the parent company and manager of its audio division, will head the new firm, a completely integrated subsidiary company devoted exclusively to Ampex products for the stereophonic sound and hi-fi consumer retail market. July 1 is the date that is scheduled for Ampex Audio to

occupy its initial plant, a 40,000-sq. ft. building on an 18-acre site in Sunnyvale, Calif., where groundbreaking ceremonies were held last month. The building will have one movable side in anticipation of expansion. Presently the manufacturing plant will occupy 32,000 sq. ft., and office space the remaining area. About 250 employees are expected initially for the firm, which will have its own engineering, manufacturing, marketing and finance structures, with a product line designed for the consumer market.

## Ingersoll-Kalamazoo forms new distributorship set-up

Ingersoll-Kalamazoo Div., Borg-Warner Corp., announces formation of a new distributor organization for the sales district composed of the 11 Western States, British Columbia and Alaska. *Mel Wright*, 2508 E. Turney, Phoenix, Ariz., is district sales manager for the area in which the division has named the following five distributors:

Southern California and southern Nevada—Ed Sullivan's Equipment Engineering Services, 672 So. Lafayette Park Pl., Los Angeles; Northern California and northern Nevada—Schultz Materials Handling Corp., Richmond, Calif.; Colorado, Wyoming and Utah—H. M. Rattle Co., 1398 So. Santa Fe Dr., Denver, and Washington, Oregon, British Columbia and Alaska—Bill Kelly, 215 Aloha, Seattle.

Ingersoll-Kalamazoo, manufacturer of Load Lugger detachable container systems, recently announced a new model of heavy duty equipment for which much of the market research was done in the West.

## Irving King Co. opens San Diego branch



J. R. Gagnon

Irving C. King & Co., Los Angeles distributor of material handling equipment, has announced opening of a sales and service branch at 1646 India St., San Diego. *David Gatch* is manager

of the branch that will stock Towmotor and Barrett-Cravens industrial trucks, Wright and Electrolift hoists, and G. B. Lewis Co. tote boxes. The King company recently appointed J. R. "Ray" Gagnon to be manager of the hoist and crane department.

## Two representatives named by Clark Equipment Co.

Clark Equipment Co.'s Industrial Truck Division has appointed two Western firms to sell and service its line of fork-lift trucks, straddle carriers and powered hand trucks. In Arizona the distributor named was Naumann Lift Trucks, Inc., 2308 So. 11th Ave., Phoenix. Gray Lift, Inc., 1905 Mary St., Fresno, Calif., will handle the Clark line in the California counties of Mono, Mariposa, Merced, Madera, Fresno, Tulare, Kings, San Luis Obispo and western Kern.

# A MIGHTY PAN!



## 3,000 POUND SAFE LOAD

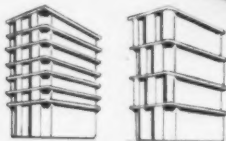
*Lewis*

### Stack-n-Nest®

FIBER GLASS TOTE PANS

Unbelievable strength, yet feather light in weight. Molded in one piece powerful fiber glass reinforced polyester.

Pat. Applied For



they Stack-n-Nest® in their own dimension

**G. B. LEWIS REPRESENTATIVES**

● Valley Forklift Rental & Equip. Co. 2424 South Railroad Ave. Fresno 6, Calif.	● Oregon Handling Equipment Co. 2949 N.W. St. Helens Road Portland 10, Ore.
● Irving G. King & Company 821 Mateo Street Los Angeles 21, Calif.	● Equipment Supply Company 16 Post Office Place—N. Opposite P. O. Salt Lake City 1, Utah
● The E. C. Buehrer Assoc. Inc. 253 Fourth Street Oakland 7, Calif.	● A.I.M. Plastics Company 408 Broad Street Seattle 9, Wash.

G. B. Lewis Co., Dept. W, Watertown, Wis.

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7th NATIONAL  
MATERIALS  
HANDLING  
EXPOSITION  
Booth 1002

Now in 5 sizes!

Red 16 x 10 x 5  
Green 18 x 12 x 6  
Grey 18 x 12 x 8  
22 x 14 x 8  
27 x 16 x 11



## Westinghouse opens Utah distribution center



J. C. Belloni

First in a nationwide network of centers planned by Westinghouse was the Pacific Coast unit opened recently in Ogden, Utah, to serve 11 Western states, Hawaii and Alaska. Located in two buildings leased from the Navy at its Clearfield supply depot, the facility has a floor area of 240,000 sq. ft. for stocking such consumer products as electric appliances, radio and television receivers, etc., as well as electrical apparatus serving utilities, industrial companies and other customers. Ultimate employment in the center is expected to be 100 persons. Joseph C. Belloni, who joined Westinghouse in San Francisco 26 years ago, has been named Pacific Coast manager of distribution services and resident director, according to an announcement from *Walter J. Maytham*, Pacific Coast vice president for Westinghouse.

## Buck Mfg. moves to San Jose, Calif.

Production by Buck Mfg. Co. is expected to be increased by 300% following a recent move to a new manufacturing plant and office at 1355 North 10th St., San Jose. The move will also provide more factory area for production of their portable Bux magnetic tools. Formerly located in Los Gatos, the company moved to permit expansion of manufacturing and to provide better machine shop facilities for job work on a contract basis. E. W. Buck, president, and K. V. Lund, executive vice president, head the firm that produces magnetic equipment such as drill press stands, plate clamps and drill vises.

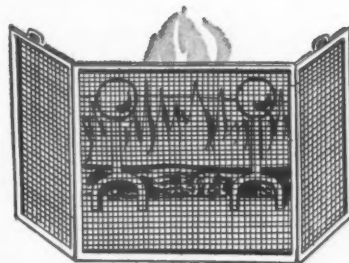
## Earthmovers to handle Yale & Towne trucks

Yale Materials Handling Div., The Yale & Towne Mfg. Co., has named Earthmovers Equipment & Supply Co., as industrial lift truck sales and service representative in the San Diego, Calif., area formerly covered by the Los Angeles branch. Headquarters for the distributor firm are at 6029 Fairmount Extension in San Diego. Jack S. Deaderick, president, Harry Booth, vice president, and Gene Meek, Royal Busboom and Nelson B. Lee are among the Earthmovers staff.



in  
making  
fine  
textiles

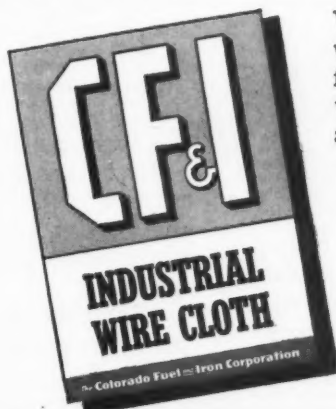
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# CF&I INDUSTRIAL WIRE CLOTH

Versatility is another name for CF&I Industrial Wire Cloth. A special tinned version of it is used to gather lint in the manufacture of fine textiles. Another type is used to confine troublesome sparks to the safety of the fireplace. And chances are that you're using—or could be using—it to good advantage in your operation.



Why not get complete details on the wide variety of weaves, meshes and ferrous and non-ferrous metals in which CF&I Industrial Wire Cloth is available? Write today for Catalog.

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CANADIAN REPRESENTATIVES AT: Calgary • Edmonton • Vancouver • Winnipeg

4335

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189



Announcing the Appointment of  
**E. C. BUEHRER**  
ASSOCIATES, INC.

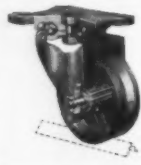
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Offering the combined advantages of over 40 years specialized service to users of Materials Handling Equipment . . . and industry's foremost Light, Medium, Heavy and Extra Heavy Duty Casters carried in our Pacific Coast stocks for your complete Caster requirements.

**E. C. BUEHRER ASSOCIATES, INC.**  
253 Fourth Street  
Oakland 7, California  
TE 6-2082



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**Republic Supply sets up  
pipe department**

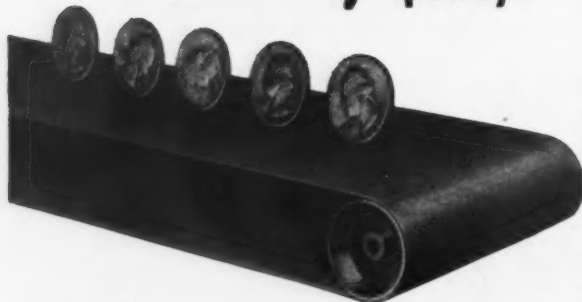
Organization of a new pipe department with a special services program of consultation with buyers has been announced from Los Angeles by The Republic Supply Co. of Calif., independent distributor of industrial supplies and oil country goods. The new department is under direction of J. G. "Andy" Anderson, assisted by Paul Richards and Larry Canaan. Consultation service will be provided on pipe specifications, coating and wrapping, cement lining service, cutting and threading, and grooving for victaulic coupling.

**Calpacific Equipment  
appointed by Sprague**

Calpacific Equipment Co. of San Francisco is the newly-named Northern and Central California representative for Sprague Engineering Corp., of 19300 So. Vermont Ave., Gardena, Calif. The Sprague firm manufactures stationary and portable hydraulic test stands, power units, air driven hydraulic pumps, accumulators and pulsation dampeners, filter and miscellaneous valves. Calpacific is located at 50 Hawthorne St., San Francisco.

**SMOOTH TRAVEL** *right down the line...*

with **Barry** pulleys



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**Barry PULLEYS**  
are another  
quality product of ...

It's a fact! Smoother and better *all around* conveyor performance is yours when Barry Pulleys are part of the system — whether general, package, portable or production line. And there's good reason ...

Barry Conveyor Pulleys, with regular or "Quick Detachable" taper bushed hubs, absorb the repeated demands of heaviest work loads without wear and tear on crowns, bearings and other components! Also, *electric welded* end discs keep out moisture and dirt which shorten the service life of other pulleys.

Because Barry Pulleys mount up closer, they form a truly inflexible assembly. And because their design permits ideal lateral alignment, they fit on shafts properly and firmly, without working loose.

Whatever the conveyor application, remember: *better performance records ride on Barry Pulleys!*

**R. & J. Dick COMPANY, INC.**  
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SAN FRANCISCO 7  
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SUtter 1-1341

SEATTLE 4  
307 Maritime Bldg.  
MUtual 1922

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See Directory listing page 126



## E. D. Bullard now in Sausalito location

Now occupying a new building at 2680 Bridgeway in Sausalito, Calif., is E. D. Bullard Co., manufacturer of safety hats and other industrial safety equipment. Formerly in San Francisco, 12 mi. across the Bay from the new location, the firm is now housed in a structure with 40,000 sq. ft. of manufacturing and warehouse space, plus 8,000 sq. ft. of office area. It is located on a three and one-half-acre site affording room for expansion expected within the next two years. Norris Seastrom is sales manager for the Northwest district, comprised of Washington, Oregon, Wyoming, Utah, Idaho, Colorado and British Columbia. Edward J. Illes, Southwest district manager, covers New Mexico, Arizona, Texas, Oklahoma and Kansas. E. W. Bullard is president of the firm and E. W. Bullard, Jr., vice president in charge of sales. Among board members are James A. Folger, Alfred Ruggiero and Carl Bromham.

## Meg-A-Therm Corp. purchased by Wiegand

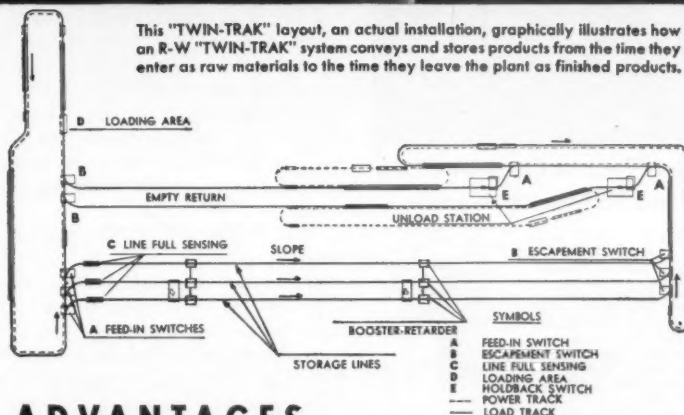
Recently announced was the purchase by Edwin L. Wiegand Co. of the controlling interest in Meg-A-Therm Corp., West Coast manufacturer of tubular electrical heating elements, headquartered in Los Angeles. Announcement was made by F. H. Montgomery of Montgomery Brothers, Western representatives for Wiegand, world's largest manufacturer of electrical heating equipment. The new firm will be known as Pacific Chromalox, Inc., with a plant at 19119 So. Hamilton St., Gardena, Calif. Tom Lennox, founder of Meg-a-Therm, will be general manager of the new concern, and Montgomery Brothers, with offices and warehouses in San Francisco, Los Angeles, Seattle and Portland, will be sales representatives for all products. The new plant will give Wiegand, a Pittsburgh, Pa., manufacturer, a West Coast fabricating plant for specialization in tubular equipment for atomic energy and aircraft industries, as well as commercial and industrial firms.

## Howard Supply named Stockham distributor

Stockham Valves and Fittings Co. has appointed Howard Supply Co., Los Angeles, as a distributor for their bronze, iron and steel valves. Howard has 12 warehouses in California. Stockham has headquarters in Birmingham, Ala., and sales offices throughout the Western area.



This "TWIN-TRAK" layout, an actual installation, graphically illustrates how an R-W "TWIN-TRAK" system conveys and stores products from the time they enter as raw materials to the time they leave the plant as finished products.



## ADVANTAGES

- Provides trouble-free, automotive-selective control over product movement through entire plant.
- Economical and practical . . . provides added storage space . . . saves time, labor and money.
- Automatically supplies component parts to work stations from storage banks or lines.
- Economical to install . . . extremely flexible . . . quickly and economically revised or modified to meet your changing needs or future expansion plans.
- Ideal for conveying and dispatching products in multiple story buildings.
- Designed, manufactured and backed by the leading firm in this field for over 75 years.

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Materials Handling Division



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San Francisco 10, Calif.  
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# New Power Package for Lift Trucks!



## New LP-Gas Carburetors Jetted to Performance Curve

New, compact Century 3C Carburetor employs the famous metering valve which is calibrated for perfect power curves... easy starting... and perfect idling. Available in 1/2", 3/4" and 1" SAE sizes. Requires only tune up adjustment.



## New Small Converter



Cast-in chambers for gas and water give this small Model H Century Converter a king-size capacity. Weighs only 3 lbs. Is 5 1/4" in dia. by 3". Has built-in lockoff and manual or electric primer.

## New Fuelock-Strainer

Small compact unit is a filter-strainer and an ignition controlled fuelock. Provides extra safety when truck is idle. Easy to install; easy to clean.



Write for new brochure entitled "How to Reduce Fork Lift Operations Costs with LP-Gas."



Century carburetion equipment is registered under Underwriters Laboratories, Inc.

# CENTURY

LP-Gas Carburetion



Century Gas Equipment Co.

6855 E. Rosecrans Ave., Paramount, Calif.

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See Directory listing page 123

## Goodyear expands Los Angeles facilities

A \$7,500,000 tire press building recently completed is the latest addition to Los Angeles facilities of Goodyear Tire & Rubber Co. Located at 68th St. and Central Ave., it is 140 ft. wide, 540 ft. long and connected by tunnel and conveyor to an adjacent building 80 ft. distant. It has a basement area that houses sanitary facilities and storage areas, plus providing access for processing utilities to tire presses in pits at the first floor level. The second floor level, with wall and roof framing of structural steel, is one large room for manufacturing use. Two 60-ft. spans support the roof.

## U. S. Steel Supply creates new Northwest district

U. S. Steel Supply Division of U. S. Steel Corp. has recently created a Pacific Northwest district to expand operations and service in the Oregon and Washington sales area. The division will continue to operate its Portland and Seattle warehouses, but office sales service will be centralized at Seattle.

John M. Morava, division president, announced formation of the new district, as well as establishment of an inter-district communications and transportation program between the two warehouses, including installation of new electronic communications equipment and start of nightly truck service between those two points.

Manager of the new district will be Edward C. Labar, with Richard M.

Padden as assistant manager. Consolidated office services at Seattle will be under the direction of D. F. Gotthardt, formerly in charge of the Portland operation.

## Huck Mfg. Co. opens Western branch

Establishment of a Western branch for warehousing and service of Huck Mfg. Co.'s line of blind rivet and lock-bolt fasteners and related tools has been announced by George Q. Mathews, sales vice president. Address of the new facility is P. O. Box 45575, Airport Station, Los Angeles 45. The remodeled and modernized building has facilities for stocking fasteners and tools, plus a tool division service department. Western branch manager is Richard A. Villacres, transferred from Minneapolis, Minn., where he was Huck's regional engineer representative. Edward A. Kruse, formerly manager of the Detroit sales office, is order department manager.

## Narmco Mfg. firm starts expansion of facilities

Narmco Mfg. Co. of La Mesa, Calif., anticipates manufacturing capacity to be upped by over 20% following construction of a 20,000-sq. ft. plant addition. Norman F. Trost, president of the aircraft parts fabricating firm, announced the start of construction early last month, saying the plant expansion program was necessitated by rapid additions in Narmco's order backlog.

Scheduled for completion in May,

# ACCO's Great Chain...

## ACCOLOY X-WELD 125

PATENT NO. 2763768

**ACCO**  
for Better Values

**THE SECRET IS IN THE WELD!**

ACCOLOY X-WELD 125 has 2 1/4 times as big a welded area as possible with other welding processes. This means more than double the security at the weld.

**NOW**—a chain with welds as strong or stronger than the material—welds with projecting lugs that prevent kinking! **Accoloy X-weld 125** Chains hang straight as a die. Each link is perfectly formed.

ACCOLOY X-WELD 125 CHAINS are ideal for slings, bundling, towing, boomer, utility chains. Can be furnished in special analyses and heat treatments. Available in 1/4", 3/8", 1/2", 3/4" and 1" sizes.

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**American Chain Division**  
**AMERICAN CHAIN & CABLE**

York, Pa., Atlanta, Boston, Chicago, Detroit, Houston, New York, Philadelphia, Pittsburgh, Bridgeport, Conn.

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See Directory listing page 119

**WESTERN INDUSTRY — April 1957**



the new addition is a one-story concrete block structure to house expanded tooling, assembly, inspection and shipping facilities as well as offices. A 40,000-sq. ft. paved parking area will also be added. Following completion of the new facilities, Narmco will discontinue manufacturing operations at its plant at 930 W. Grape St., San Diego, occupied since 1946.

The firm has tripled its personnel in the last year and increased its order backlog 240%. A supplier to several aircraft firms, the company produces parts for Convair's F-102A supersonic jet interceptor.

### Idaho to get three Tenex wafer panel plants

Three plants for the production of Tenex wafer panel board are planned for Northern Idaho within the next two years, one near Sandpoint and two near Coeur D'Alene. *L. V. Brown* of Spokane, Wash., and *J. M. Brown, Jr.*, of Sandpoint, who will build the plants at a cost of more than \$2,000,000, have recently incorporated as Tenex, Inc., to own and operate these and a similar \$1,000,000 existing facility at Sandpoint. They also own Pack River Lumber Co. and other lumber corporations. Tenex panel board is made from sawmill wood waste material sliced into wafers that are mixed with chemical resin and other adhesives, then bonded under heat and pressure to produce a panel similar to natural wood but with a surface appearance that is three-dimensional.

### Construction under way for Annin Co. in Los Angeles

Construction of The Annin Co.'s new plant in the East Los Angeles industrial area is well under way, with completion scheduled for June. Initial plant construction on the three and one-half-acre site will consist of 40,000 sq. ft. of additional manufacturing facilities. The new structure will provide larger general offices, expanded engineering and development facilities, and increased areas for testing and assembly of the firm's control valves for process, research, development, and special projects.

### Ziegler Steel named Revere distributor

Ziegler Steel Service Corp. has been appointed aluminum sheet and coil distributor for Revere Copper and Brass, Inc., in the Los Angeles and San Francisco metropolitan areas. Stocks will be carried in three warehouses at 7022 Bandini Blvd., Los Angeles 22;

727 Sixty-Sixth Ave., Oakland 21, and 7400 Laurel Canyon Blvd., North Hollywood. *Herbert Ziegler* is president of the distributor firm which will handle aluminum products as well as stocks of alloy, high carbon, tin- and zinc-coated sheets, and strip steel.


### Hughes' supplier firms schedule Tucson plant

Two supplier companies for Hughes Aircraft guided missile plant in Tucson, Ariz., will build and operate a plant in that city, according to a recent announcement. The Networks Electronic Corp. and the Missile Research Manufacturing Corp. of Cali-


fornia, have purchased a five and one-half-acre site for a plant scheduled to be in operation soon. *Harold J. Mock* heads the two firms.

### E. C. Buehrer to handle Faultless Caster line

Faultless Caster Corp. has appointed E. C. Buehrer Associates, Oakland, Calif., distributor firm, as its representative in the San Francisco Bay area. The newly appointed distributor, headed up by *Owen L. Jenkins*, president, will stock the full Faultless line of industrial casters, and serve users from Sacramento to San Jose.



Now available for distribution:  
a new catalog on Series 55 backward curve blowers with NAFM certified ratings. Write for your free copy.



**PIECE BY PIECE,  
PART BY PART**

**MASTER BLOWERS**  
are made better to  
perform better  
and  
last  
longer\*

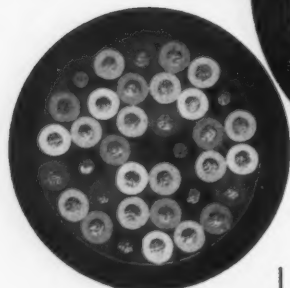
\* And this in-built superiority is competitively priced, too. That means you get real economy—long, trouble-free service with maximum performance. Call on Master FIRST when YOU need air moving equipment—you can depend on it!

**MASTER FAN CORP.**  
1323 Channing Street, Los Angeles 21, Calif. VA. 1037

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**NOW!**



write for

NEW FREE CATALOG CONTAINING  
A COMPLETE LISTING OF  
BRONCO 66 CERTIFIED CABLES:

WESTERN INSULATED WIRE CO.  
Los Angeles 58, California  
Please send me your new free catalog  
of wires and cables.

Name \_\_\_\_\_ Title \_\_\_\_\_  
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**BRONCO 66**  
**CONTROL**  
**CABLES**

WITH UP TO **36** CONDUCTORS

BRONCO 66 CERTIFIED CONTROL CABLES are made with the tough, flexible, oil-resistant, Synchro-Cured Bronco 66 jacket that is certified to contain not less than 67.32% Neoprene. Jacket is branded every two feet.

There are three types of Bronco 66 Certified Control Cable—extra flexible portable cable, shielded portable control cable for electronic circuits, and "stationary" for important control circuits. In the stationary type there is a color-coded Neoprene jacket over each single buna-rubber-insulated conductor.

**WESTERN INSULATED**  
**WIRE CO.**

Los Angeles 58, California

**HYSTER**  
**QC 20**  
**Lift Truck**



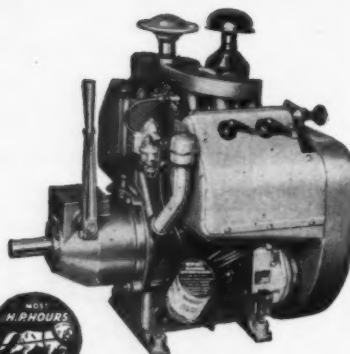
**POWERED**  
**by**  
**NEW VH4**

**WISCONSIN ENGINE**

Hyster Co. specifies the new VH4 30 hp. Wisconsin Engine for the Model QC 20. In the next fork truck you buy, insist on this great new Wisconsin Engine, too. You get fool-proof air-cooling, a smooth low-speed "idle" and incomparable horsepower in an engine of this size. Maintenance is simpler... no coolant to watch in freezing temperatures. Also, your Wisconsin Engine delivers more torque for more work, and its rugged construction assures longer engine life, more engine stamina. Write for complete data... Bulletin S-196.

**WISCONSIN MOTOR CORPORATION**  
World's Largest Builder of Heavy-Duty Air-Cooled Engines  
**MILWAUKEE 46, WISCONSIN**

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## New Mexico facility for solar equipment

Albuquerque, N. Mex., will be the site of a research, development, and production plant for Gulton Industries of Metuchen, N. J., with Burt J. Bittner, formerly with Sandia Corp., as head of the project. Construction is to begin this month with operations starting late this summer. The plant will deal in fields of high frequency telemetering systems and related communications devices, ultrasonic drivers, solar furnaces and geophysical equipment. Initial plans call for a \$150,000 facility of 8,000 sq. ft., first year expansion to 20,000 sq. ft., and corresponding increase in employees from the 25 at the start.

## Koppers-Brea plant in Los Angeles postponed

Koppers Co., Inc., and Brea Chemicals, Inc., have postponed construction of a \$15,000,000 polyethylene plant at Los Angeles, according to Union Oil Co. of California, Brea's parent company. First announced for a mid-1957 completion date, the plant was planned for an ultimate capacity of 60,000,000 lb. of polyethylene. Raw material for the facility was to be supplied by an ethylene plant, costing \$7,000,000 to \$8,000,000, that Union Oil had scheduled for construction at its Los Angeles area refinery.

## WESTERNERS AT WORK...

### The Weatherhead Co.

... has added John D. Morell of Seattle, Wash., to the field staff of its industrial distributor division. Named as sales representative for the Northwestern section of the country, he will represent Weatherhead in Washington, Oregon, Idaho, Montana, and Wyoming. Morell was previously affiliated with Harvey Aluminum Sales, Inc., and Los Angeles Airways, Inc.

## CONVEYOR SPECIALISTS

Material Handling Equipment

**PALTIER**

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**Lyon Metal Shop Equipment**

**Capitol 2-7197**

**DAVIS**

**MATERIAL HANDLING CO.**

5582 Alhambra Ave., Los Angeles 32, Calif.

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WESTERN INDUSTRY — April 1957



## Thor Power Tool Co.



W. G. Laughlin

... has established a new post, that of industrial division manager, naming William J. Laughlin, Los Angeles branch manager, to fill it. Laughlin, who joined Thor in 1946, will move to Thor's executive offices in Chicago to supervise all industrial air and high frequency electric tool sales throughout the company's domestic and export branches. Clarence H. Gabriel has been appointed to succeed Laughlin as Los Angeles manager, transferring from Denver, where Mark A. Sorenson will take over managerial duties.

## American Potash & Chemical Corp.

... has appointed Ralph N. Hoh Western sales manager of industrial chemicals, according to an announcement by William M. Clines, Western general sales manager. The appointment marks creation of a new section in the sales department. An employee of the company since 1939, Hoh has recently served as Western sales manager for soda ash and salt cake, and will continue with these products as well as for phosphoric acid, sodium and potassium chlorate, manganese dioxide and sulphur dioxide.

## Kaiser Steel Corp.

... has named John F. Hoffman assistant superintendent of the electric weld pipe mill, a position that includes responsibility for operation, planning, personnel and labor relations of that mill. Formerly with Welded Products Co., Crucible Steel and Pittsburgh Bridge and Iron, Hoffman joined Kaiser in 1951 as a design engineer.

## Ed Sullivan's Equipment Engineering Service



W. D. Roch

... of Los Angeles, has added William D. Roch to its staff as applications and service engineer for Borg-Warner equipment in Southern California. Roch formerly was associated with Bendix Aviation's industrial engineering department and a plant manager at Royal Jet and Jensen industries before joining Sullivan.

## Columbus McKinnon Chain Corp.

... and its Chisholm-Moore Hoist Div., have appointed Arthur H. Luchs direct factory representative in Northern California and Nevada. Headquartering in San Francisco, Luchs will represent the corporation's chain products line.

## Oakite Products, Inc.

... has honored John Mackesy, San Francisco representative, with its David C. Ball award for distinguished service to the company. Sixth winner of the commendation, Mackesy received it for his overall sales and service work during 18 years with Oakite.

## Look to

# Fairbanks

for the finest MATERIALS HANDLING EQUIPMENT

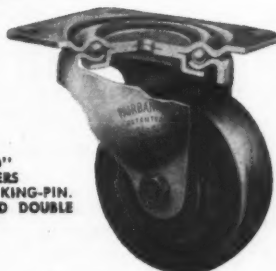


STEEL-FRAMED  
TWO WHEEL  
HAND TRUCKS

FIG. 9215-S



"BANTAMWEIGHT"  
ALL WOOD  
PLATFORM  
TRUCKS



"LOCKWELD"  
STEEL CASTERS  
WITHOUT A KING-PIN.  
SINGLE AND DOUBLE  
BALL RACE



VULCANIZED  
RUBBER TIRED  
WHEELS

## LOOK TO

These leading West Coast Distributors, who recommend and stock FAIRBANKS products, for the answer to your materials handling problems.

### LOS ANGELES, CALIFORNIA

McKinley Equipment Co., 1557 Esperanza St., Angelus 9-0567  
Warren & Bailey Co., 3528 So. Garfield Ave., Raymond 3-7181

### SAN DIEGO, CALIFORNIA

Warren & Bailey Co., 2305 E. Belt St., BElmont 9-9491

### SAN FRANCISCO, CALIFORNIA

Hamerslag Equipment Co., 110 Freeway Blvd., JUnio 3-5757  
Warren & Bailey Co., 1287 66th St., Emeryville, OLYmpic 4-2200  
From S. F. ask operator for ENterprise 1-2370

### PORTLAND, OREGON

Oregon Handling Equipment Co., 2949 N.W. St. Helens Rd., ATwater 4196  
Harris Supply Co., Div. of Warren & Bailey Co., 524 N.W. 14th Ave., CApital 8-4181

### SEATTLE, WASHINGTON

Materials Handling Equipment Co., 2963 1st Ave., So. SEneca 0997  
H. L. McElhany Co., 425 Alaskan Way So., SEneca 5232

### SPOKANE, WASHINGTON

Towne Equipment Co., N. 622 Monroe, BRoadway 0462



## THE Fairbanks COMPANY

393 Lafayette Street  
New York 3, N. Y.

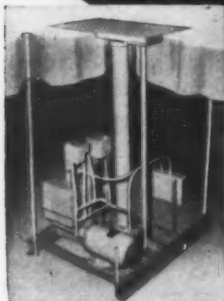
VALVES • DART UNIONS • TRUCKS • CASTERS • WHEELS

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195



**You, too, may benefit  
with Weld-Bilt  
HYDRAULIC  
LIFT TABLES  
like these**



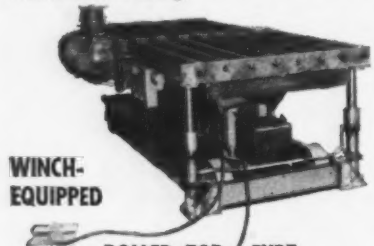
**THRU-  
THE-  
FLOOR  
TYPE**

Suspended below the floor, with platform top at floor level — lifts skidloads to machine level for effortless production.



**RECESSED-CENTER  
TYPE**

Affords flexibility in handling steel sheets of varying widths. Raises sheets to press height without manual lifting.



**WINCH-  
EQUIPPED**

**ROLLER TOP / TYPE**

Motor Driven Winch moves heavy dies on or off presses on free-running rollers. Raised and lowered by two-way foot pedal control.

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See Directory listing page 148

**Columbia-Geneva Div., U. S. Steel**

... has two executive changes in its San Francisco and Pittsburg, Calif., operations. **Donald E. Rice**, general superintendent of the Pittsburg works, has been named general manager for operations in the division, with headquarters in San Francisco, and **Charles C. Morgan** appointed to succeed him at the Pittsburg facility. Rice has been superintendent of several Columbia-Geneva units in San Francisco and Torrance, before taking the Pittsburg post in 1954. Morgan,



**C. C. Morgan**



**D. E. Rice**

with U. S. Steel since 1939, has held similar posts in Pittsburg and Torrance, being general superintendent since 1954 at the latter plant.

**Standard Tool Co.**

... has added **Milo Dellman** to its expanding sales force, assigning him to the Western area with headquarters in South Gate, Calif. Centering activities in California, Oregon, and Washington, Dellman will represent and provide technical application assistance for stock and special molds, presses, cutters, castings and other Standard Tool products.

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**Petrolane Gas Service, Inc.**



**R. J. Munzer**

... has announced that **R. J. Munzer** has been named president of the Long Beach, Calif., firm, succeeding **P. E. Foote**, who held the position concurrently with that of chairman of the board. **Leonard Andrews**, formerly vice president, will become executive vice president, succeeding Munzer. Well-known in the liquefied petroleum field, Munzer was an executive with Andrews Butane before its merger with Petrolane in 1954. He was secretary of the Western Liquid Gas Association in 1954 and chairman of the national group's regional convention in 1956. Foote will direct long-range planning for the corporation, a retail and wholesale distributor of liquefied petroleum gas with 65 plants in six Western states.

**Earle M. Jorgensen Co.,**

... has elected **Robert Lindman** vice president and merchandising manager of the steel and aluminum products' distributor firm. Headquartered in the company's main office in Los Angeles, he will direct all procurement activities for Jorgensen's six steel service plants, as well as its forge division in Los Angeles. Lindman has been with the firm since 1950 serving as a Los Angeles area sales representative, after previous positions with Boeing Airplane Co. and Kaiser Aluminum.

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## Joseph T. Ryerson & Son, Inc.



R. H. Wasz

... has appointed **Robert H. Wasz** general manager of its San Francisco steel service plant succeeding **Wayne D. Dukette**, recently named to a similar position in Los Angeles. A Ryerson employee since 1942, he formerly was manager of the procurement department and since 1954 has been director of the merchandise-procurement division.

### United States Chemical Milling Corp.

... has appointed **Leslie Welge** manager of manufacturing services, a new position with USCM, sub-contractor in chemical milled aluminum and magnesium parts for aircraft and missiles. Formerly assistant shops superintendent for industrial engineering and head of Mare Island Naval shipyard plant and processes, Welge earlier was chief engineer on the USS Norfolk and other USN vessels.

### General Logistics



A. B. Fredhold

... a subsidiary of Aeroquip Corp. has appointed **Allan B. Fredhold** as plant manager at Pasadena, Calif. Formerly staff engineering manager for Aeroquip's Western division in Burbank, Calif., Fredhold in his new post will be responsible for all manufacturing operations at General Logistics, manufacturer of load control and tie-down equipment.

### Tapered Air Products, Corp.

... has appointed **Jack Southwell** superintendent of Plant One at 10890 Stanford Ave., Lynwood, Calif. Previously factory superintendent for McCulloch Motors in Los Angeles, Southwell has had over 20 years experience in tooling and engineering posts, including association with Norris-Thermador Corp., Fairbanks-Morse and Pullman Car Works. Tapered Air, a major fabricator of milled structural components, recently announced contracts for such products from Convair and Lockheed.

### Airterra, a new corporation

... formed to market and service Roylyn products, has named **N. Heath McDowell** as general sales manager with headquarters at the firm's office in Glendale, Calif. Most recently with Aviation Developments, Inc., of Burbank, Calif., McDowell has also been affiliated with Pan American Airways, Wright Aeronautical Corp., and Pacific Air-motive, Corp.

### National Vulcanized Fibre Co.

... has two announcements concerning its San Francisco office. **John J. Morris III** has been named district manager of the sales office, and the location of the office has been moved from 273 Seventh St., San Francisco, to nearby Atherton, Calif., where the address is 3351 El Camino Real. Morris succeeds **Walter M. Gallagher**, recently appointed Detroit, Mich., district sales manager.

# CLASSIFIED SECTION

Space is sold as advertisers' inches. All advertisements in this section are 1/4 inch short of contracted space to allow for borders and composition. Rates are \$12.00 a column inch. Copy should be sent in by the 25th of preceding month if proofs are required; by the 28th if no proofs are required.

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### ElectroData Division, Burroughs Corp.

... has announced appointment of **Lloyd R. Buchanan** as Western region field engineering manager. From headquarters in the Tioga Bldg., Berkeley, Calif., Buchanan will supervise field engineering personnel as well as installation and maintenance for ElectroData products in the 11 Western states.

### Pacific Coast Engineering Co.

... announces appointment of **Walt L. Treadwell** as chief engineer of the Alameda, Calif., firm of designers, engineers and fabricators. He replaces **C. H. Zweifel** in the post.

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### U. S. Steel

... has announced appointment of two assistant vice presidents in its sales departments. Named were **M. M. Chapman** of the sales-distribution department, and **John R. Johnston** in sales-solicitation. Both have been in U. S. Steel sales for over 30 years.

### Pomona Tile Mfg. Co.

... has promoted **V. Joseph Konk** to plant superintendent of its main plant at Pomona, Calif. Employed by the firm since 1946, he was formerly production manager at the facility where he will now be in charge of all production and quality control of ceramic tile manufactured there.



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in the April 1957  
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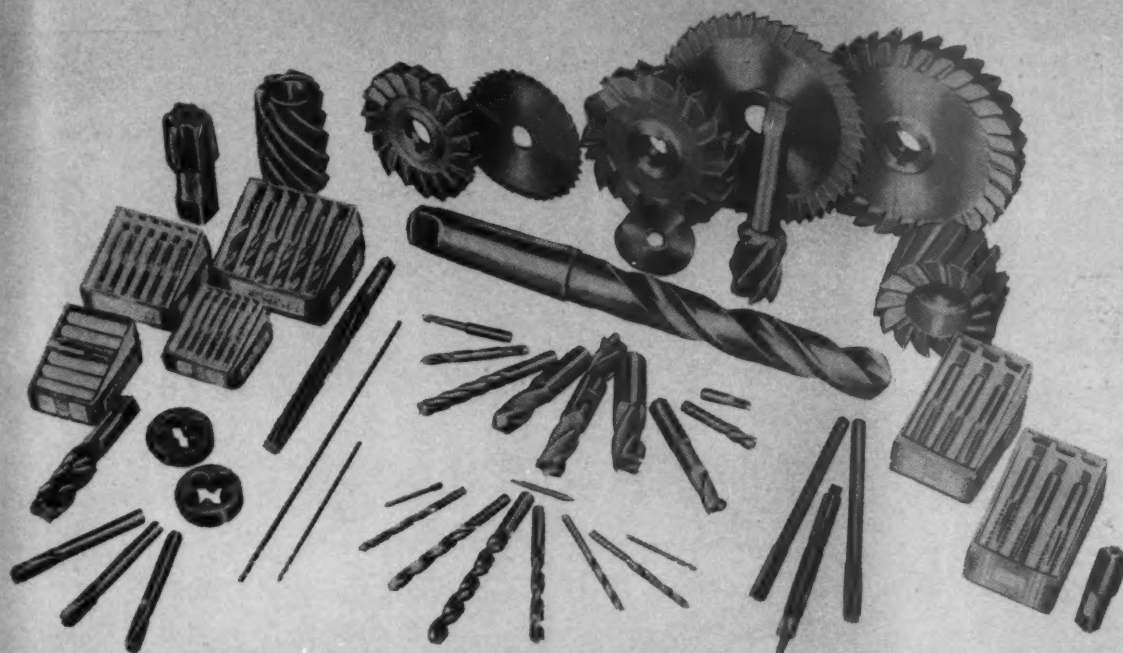
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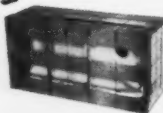
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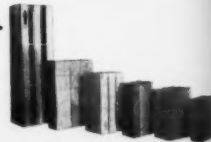
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